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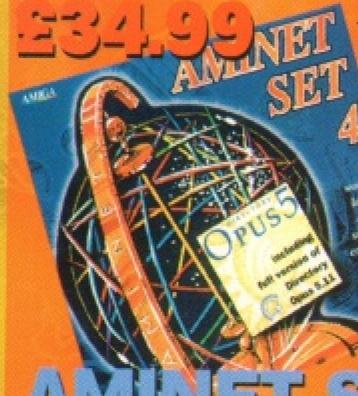
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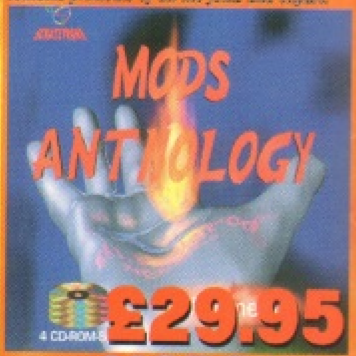
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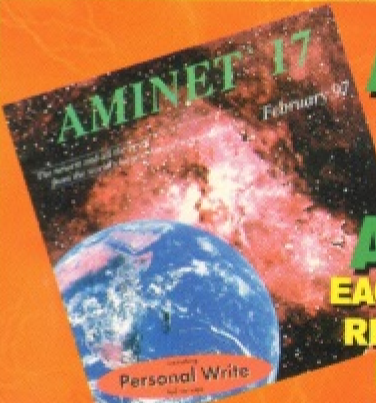
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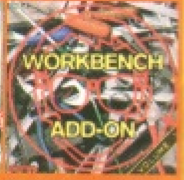


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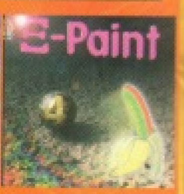
Aminet, the worlds largest Amiga archive, provides compact discs of the sites latest software uploads. Each volume contains about 1.1 gigs of archives with a superb menu system for un-archiving the files and a simple search facility to help you find exactly the file required. The search facility will even list the compact disc that the file is on. Aminet 18 is available in April and Aminet CDs 13, 14, 15, 16 are still available at £14.99.

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EURO CD VOL. 1

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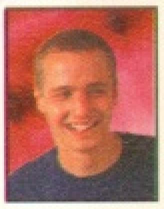
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CU AMIGA ABC Jan-June 1996 36,856

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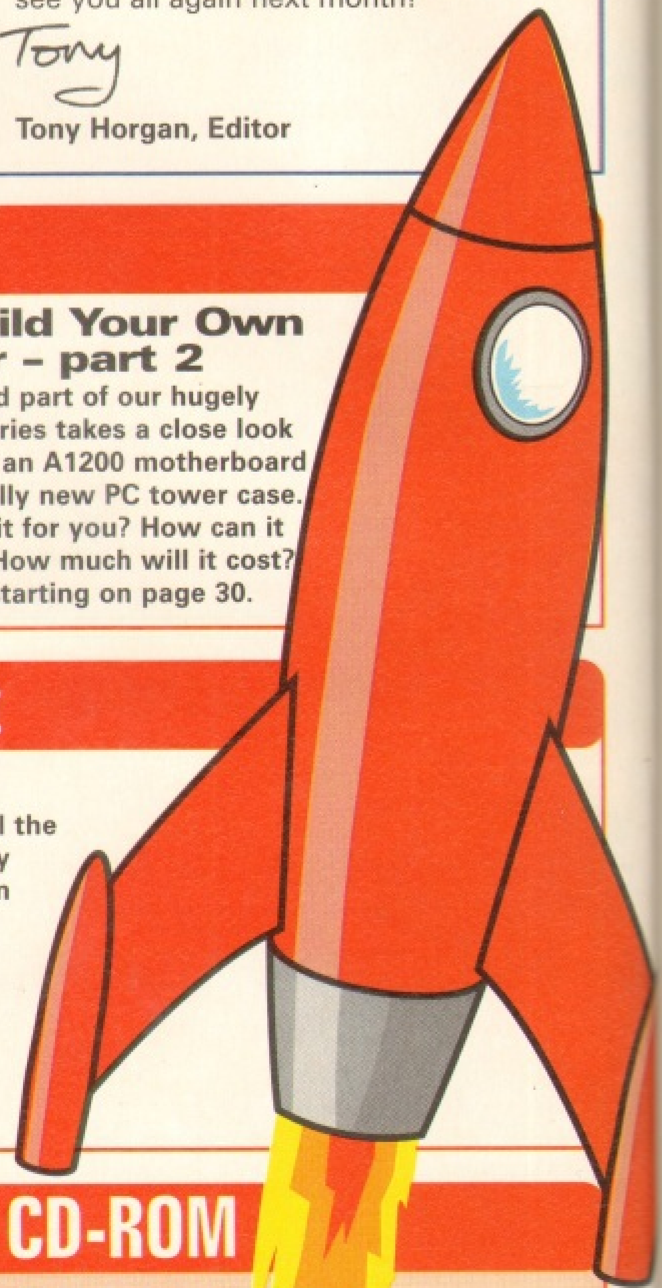
Editorial



I've seen the future and it's a nice shade of fluorescent tangerine. Basically it's looking bright for all of us, with lots of exciting developments finally making the transition from vapourware to hardware. Read all about it in our exclusive special news report in this issue. As usual we also bring you a top full package: this month it's the excellent Image Studio. You'll also notice our investigation into the intriguing area of Internet radio, and the second part of our DIY tower series. We've also got the best products reviewed by true experts as usual, as we know you demand quality. Well, I hope you enjoy the mag, and I'll see you all again next month!

Tony

Tony Horgan, Editor



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Cover Disks & Super CD-ROM



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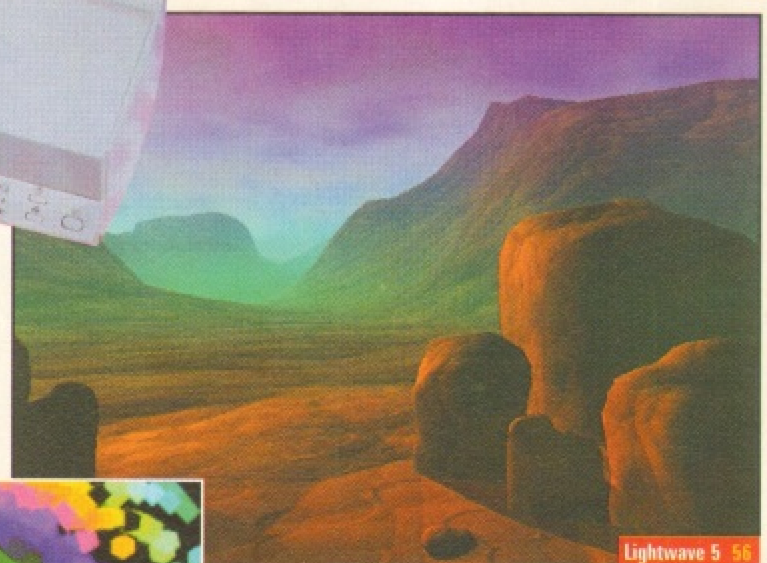


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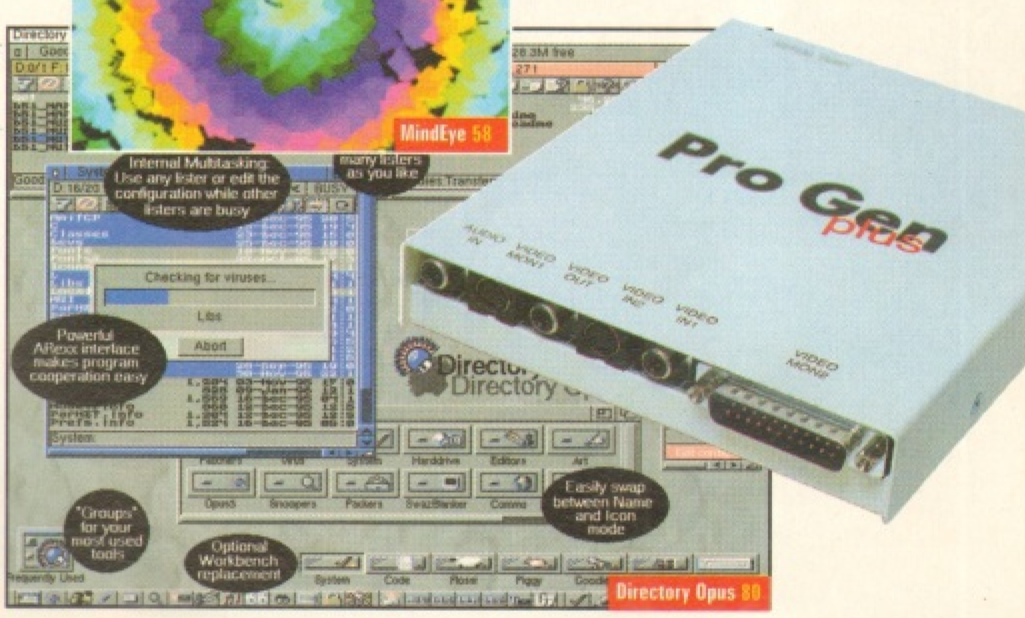


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AGA Amigas only

Kargon



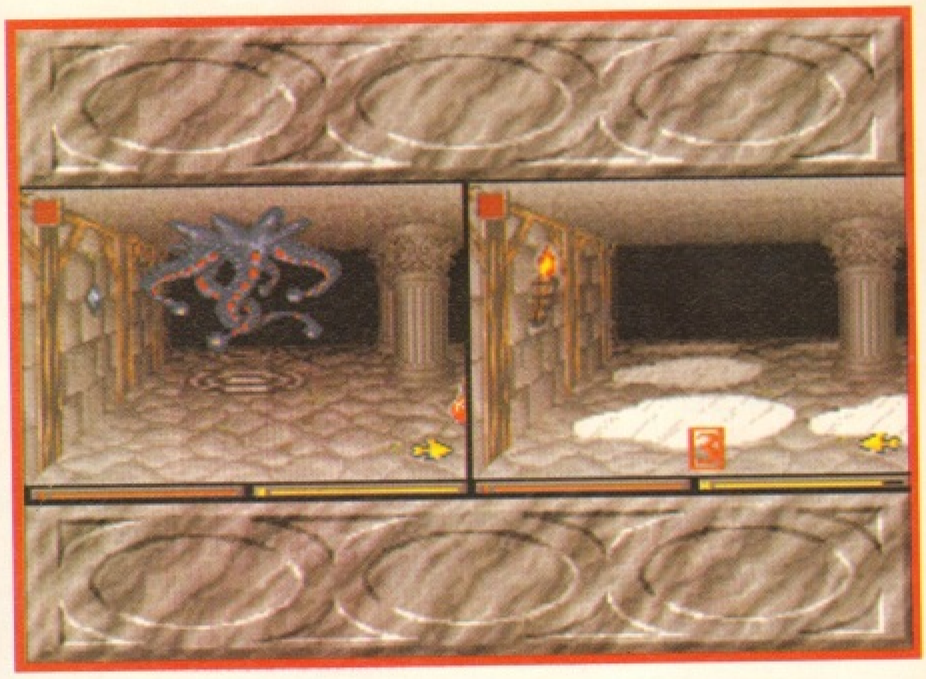
Remember you read it here first. Last issue's hottest preview gets onto the cover disk in its English form.

Plug n play

Getting Kargon to run is as easy as falling off a pair of those high wedge like shoes you see people wearing these days. Just pop it in your AGA only machine (important to remember that), turn it on and you're off. For this demo version up to four players can play. Choose between one player game, two player or one against four computer or human players or two against two if you have an adaptor.







We always like to keep abreast of what's happening in the games world and make sure we're there first with any new developments. So last month, we were delighted to here about a new games label, Islona and ACT&TCP, that looked, if the preview material is anything to go by, to be bent on producing quality games.

Kargon was one of the three games that we previewed. And we were so impressed by the demo version even though it was all in German that we begged Islona for an English translation for our cover disk. Here it is.

As you can probably tell, it's a battle of wills and spells between two wizards who must run around the Dungeon Master-like maze trying to outwit one another. For this demo there are nine spells you can use which are as follows:

Fireball I: burst of fire which damages all around it
Destroy Walls: as it says
Create Wall: Builds a wall in front of you if there is space.
Levitation: Ability to fly for a short time so you can get across holes, traps, patches of ice or teleports.
Teleport: A map with your discovered parts of the dungeon appears and you can choose by moving the 'X' where you want to be teleported to. By the colour of the 'X' you can see if you can teleport to this place (yellow) or not (red). To activate the spell press the fire button.
Double: Put off your opponent by creating a copy of your character.
Magic Eye: See around with the dungeons with this flying magic eye.
Monster: Green, ugly, slimy monster which wanders around.
Turn into tentacle: Turn yourself into a tentacle for a certain time and the other players will avoid you.

To access any of the spells hold down left and fire at any point in the game and the menu will pop up with the icons. Toggle left to right to pick a spell.

There are loads of other spells, potions and a shop option amongst other things in the full game but, you've got enough here to be going on with for now. So be off young tricksters and try not to get turned into a frog too soon. Or a bat Or a little worm or a catterpiller. ■



DISK 156

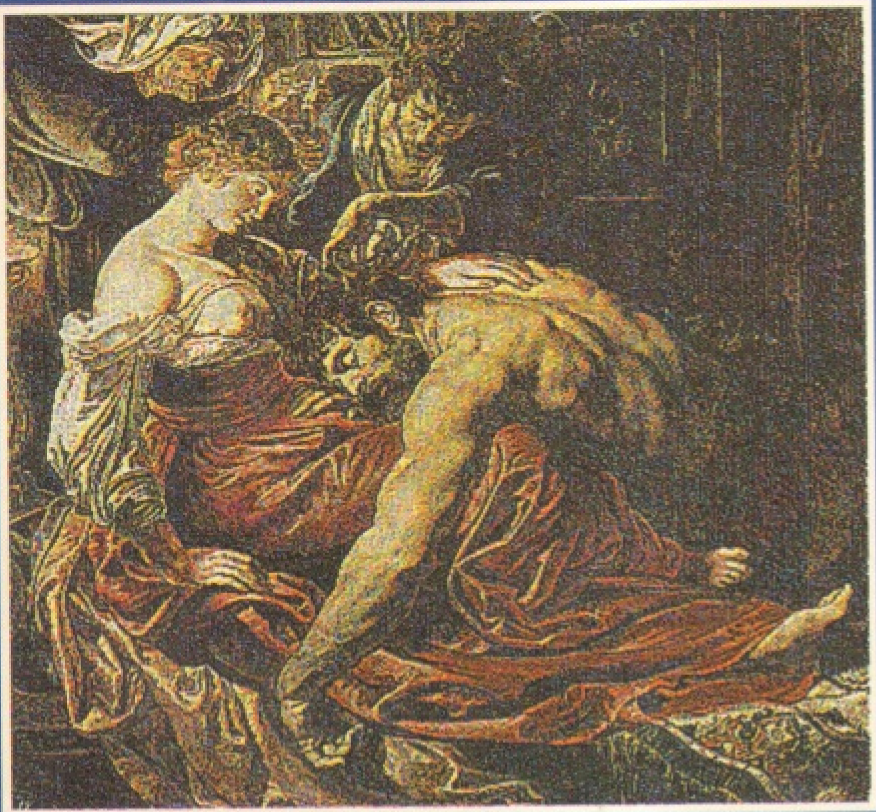
Image Studio

This is the most Amiga-friendly image processor you'll ever use. Not only does it work in full 24-bit resolution, it also has a wide range of conversion and intelligent degrading tools too!

Top features

- Loads of special effects available
- Quick and very easy to use
- Pre-programmed ARexx scripts





▲ Image studio is capable of a wide range of powerful transformations and convolutions. This is an example of the 'sharpen high' effect. See page 10 for some more examples of what it can do.

Image Studio has long been a favourite at CU Amiga. It's fast, effective and does many of the quick image processing options we need, from flashy effects to workman-like processing. Image Studio will run straight from the floppy and CD but there are a few configuration options which should be changed.

First of all, select Screen Fonts and Mode in the project menu. Change the font and screen mode to your preference. CyberGraphX users may pick a truecolour screenmode. Now select Prefs from the Project menu. You'll now have a lister with a lot of settings shown **(see Fig.1)**. Image Studio stores the working picture (it can only work on one at a time) on a tempory device, using a form of virtual memory. By default this is your T: directory usually in RAM: and while this is quick, it defeats the purpose of Image Studio's virtual memory. However, if you don't have a hard drive you will have to leave it in T: and limit the maximum size of picture to the size of your memory. Hard drive users should go down the settings lister and pick Location of Virtual Memory Files.

Press the Choose button and select a place on your hard drive where Image Studio may store its temporary files. Check the Save Screenmode box and then press Save. Image Studio is now ready.

Image Studio is capable of loading and saving a very wide variety of picture formats including the new PNG standard, which makes this an excellent utility for use in web site creation. Load in a picture with the Project Open menu. Now go to the Tools menu and select Show Balance. A small window will appear showing Brightness, Contrast and Gamma controls. **(see Fig.2).**

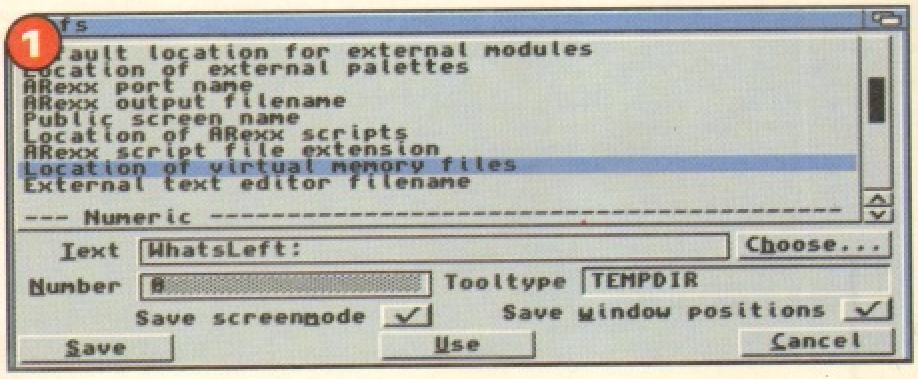
If you change these and select Apply, the changes will be performed and the result shown in the colour preview window. Also note that the colour preview window can be as large as you like. The image will be scaled to fit.

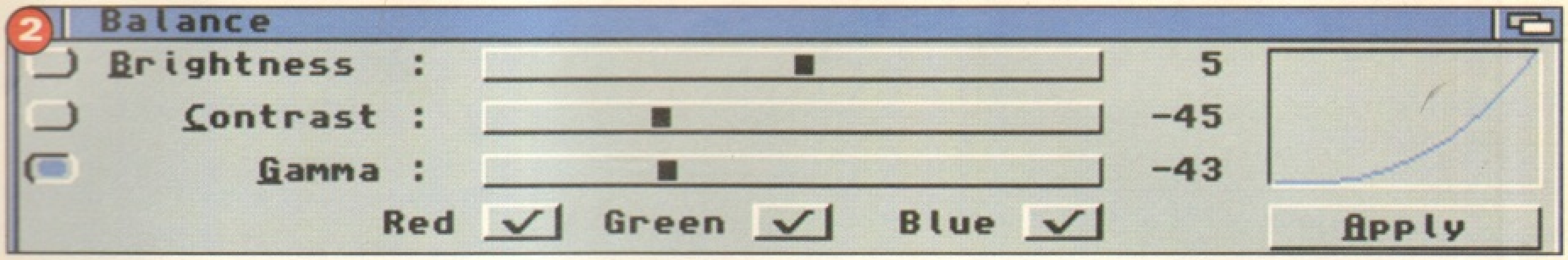
24-bit images

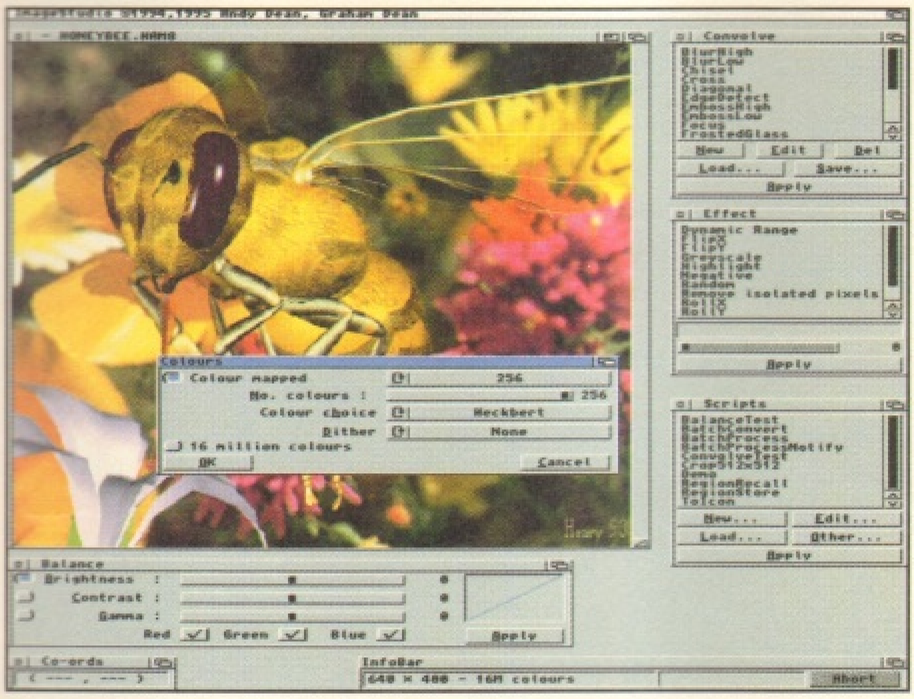
Image Studio is only capable of performing effects and convolves on 24-bit images. This isn't a problem since you can convert any colour mapped picture to 24-bit and back again. To try this out. Select Colours from the Process menu. If you loaded a 24-bit image, you will be able to create a colour mapped image with or without dithering and any amount of colours you like. This is a very handy and powerful feature! Tip: For web images, use no dithering and try for the least amount of colours necessary for the smallest resulting picture file.

At any time you can undo the last process by selecting Edit Undo from the menu again. The amount of undo levels saved on your hard drive is selectable from

1







the preferences. Now go to the Tools menu and select Show Effects and the effects lister will appear. Much of the options here are self explanatory, for example click on FlipY and then press Apply. The picture is turned upside down.

Now select Show Convovles from the Tools menu **(see Fig.3)**. Here we have a large range of very interesting image processing effects. These are applied with some heavy duty matrix maths functions on the image so some of them may take some time depending on the speed of your Amiga. Again these will need a 24-bit image to work on. Try the Blur High convolve, for that out of focus look. Alternatively the SharpenHigh and SharpenLow can emphasis detail in an image, the SharpenHigh effect is so extreme that it generally makes a colourful mess. Focus is somewhere in between the two.

Extreme Effect

Another extreme but interesting convolve is Edge Detect. This makes the whole image black but highlights sharp edges in colour for an almost engraved look. Try making a negative of it from the effects window. Frosted Glass is another neat effect, the result is a little more subtle than Cross whereas Diagonal is the most extreme version.

RaiseLow and RaiseHigh give a 3D depth to the image and so does Emboss though this is more extreme. Emboss is typically used for logos and such forth to make subtle tiled background images for web sites. Try a negative of Emboss also for a fossil-like version of your image. The Shake convolve could be useful to give the illusion of movement on occasion and Texture makes the image look like it's been impressed on canvas. Try some random into the mixture.

Image Studio also has some other handy features such as being able to crop to the desired portion of the image. To do this, first select Show Co-ords from the tools menu. A tiny little window will appear showing the current X/Y location of the mouse in the image. How accurate this is depends on the size of your preview window. You can drag a box to frame the desired part of the picture and then select Crop from the process menu. Note that you can also scale images for real via the Scale selection in the Process menu again.

When scaling images, note that the image will need to be 24-bit to use the super smooth colour average resize, otherwise only the 'fast' scaling can be used for colour mapped images.

Rearrange

Now you've probably got quite a few windows open on Image Studio's screen. A tip here is to place them where you would like them, resize the preview window to fill the remaining space and then open the preferences window again from the project menu. If you check the 'save window positions' box and press Save, next time Image Studio is started the windows will be as you have arranged them.

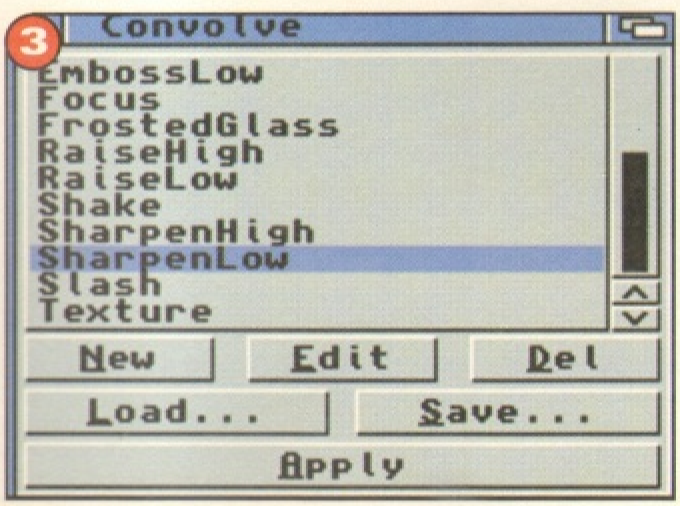
Another handy feature is Image Studio's ability to rearrange a colour-mapped image's palette. Just the sort of thing for getting that Worms level right. Load in an image and now go to Process Colours. Select an odd amount of colours to take the image down to. After this, open up the Process Palette window. CyberGraphX users beware, you will need to change screen mode to a non truecolour mode for the palette window to open.

From the palette window, you can swap colours at will, sort the ranges of colours and generally tidy up the actual palette colours. For Worms levels in particular, colours that correspond to reserved colours such as worms themselves, can be moved to the front of the palette where they belong. When everything is finished, just click on Remap and the image is remapped to the changed palette.

Lastly, one of the best aspects of Image Studio is its comprehensive and powerful ARexx port. You can write your own scripts of course, but you can also use the handy provided scripts by opening up the Tools Scripts window. **(see Fig.4)**. The best bet here is to try the demo to see what's possible and if you decide to create your own, check out Image Studio's documentation. Remember that you can hit Help at any stage in Image Studio to call up it's own on-line AmigaGuide help to set you straight. Have fun and don't be afraid to experiment!

Get the manual

Get the best from Image Studio with the printed manual for just £6.99 including P+P. This includes tutorials, info on all the commands and guides to creating your own ARexx scripts. Draw Studio is also available exclusively to CU Amiga readers for a discounted price of £54.95 on CD, a saving of £20! The floppy version is also available priced at £39.95. All of these offers are available from LH Publishing, 13 Gairloch Ave, Bletchley, MK2 3DH. Tel: +44 (0) 1908 370 230. Major credit cards, cheques and postal orders are accepted.





Continued overleaf ▶▶▶

All these filters are available from Image Studio.



▲ Normal



▲ Randomize



▲ Pixelise



▲ Negative



▲ Highlight



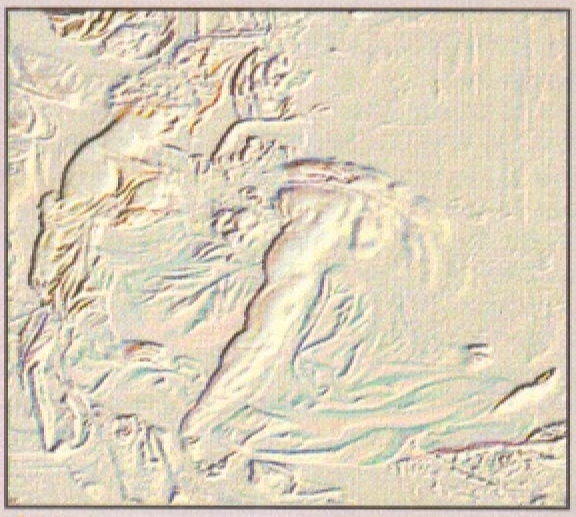
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Super CD-ROM 10



We've reached double figures for our CUCDs with disc number ten. So it's time for twice as much fun.

Welcome to CUCD10. An even spread of software through all the normal departments means that CUCD10 has something for everyone. This is one of the best CUCDs yet!

CUCD10 can booted from a CD32 or an A1200/4000 with adequate CD32 emulation. To allow you to use this CD just as well when you boot up from your own Workbench, we have included the INITCD icon, which will make various assigns to allow software to run from the CD. It also initiates MUI and the NewIcons systems – so don't be surprised if the look of your Workbench suddenly changes. It is all temporary and can be removed by clicking on InitCD again. To help you find your away around the CD, there is a DOCS.GUIDE, which connects you to pretty much every text document on the CD, and INDEX, a search tool which allows you to search the CD for a text string. Like everything on the CD, click on them to activate.

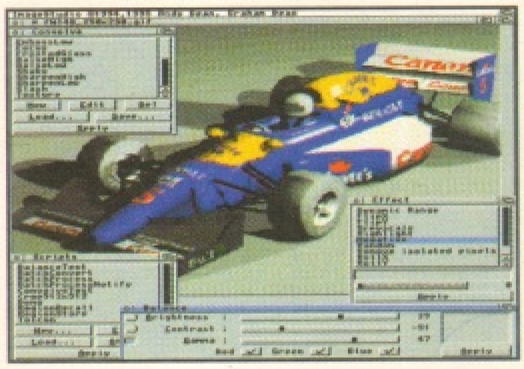
Making things work.

Click on a picture icon and a viewer loads up and displays the image. Click on a mod and a modplayer pops up and plays the tune. As much as possible of the software will run from the CD as well. However, some things on the disc won't run when you click on them. There are several reasons for this. If it is a picture or animation, you may not have enough memory. If it is a demo, it may clash with your system. If it is a utility it may need to be installed and so on. If a program doesn't activate, and no error message comes up read the documentation.

It can get complex with games and demos. Many are written in an OS illegal fashion, which means that they may not work on every set up. Run the bare minimum Workbench and try them. If this still doesn't work, boot with no startup sequence and activate the program from the shell. You will need to know AmigaDos well for this.

On the disks

Image Studio



It has been a while since we gave away an image processing package, and according to the results of our recent survey, this is the type of software that most of you are after. Image Studio is a great little package, an excellent combination of ease of use and power. This is the perfect tool for every day image manipulation and file conversion tasks.

As usual you get more for your money with the CD version, with an '020 version available for a bit extra speed, a few extra pics in the pics drawer and an extra 16Mb of photos and textures to get you going.

Check out pages 8-10 for instructions on how to use Image Studio, and if you use it to help you create a masterpiece, don't forget to send it in to our art gallery section!

Kargon

This demo from APC&TCP in Germany is brought to you courtesy of Islona, the new games publishing branch of Epic, who have some really exciting titles on their way in the future.

Kargon is a one or two player game in which you wander around a dank smelly dungeon, blasting other wizards with magic spells and generally causing a mess.

It is very much in the mould of various games called things like WizardWars which came out a few years ago and were in turn based on an old board game called War of the Wizards.

CUCD10 on other computers.

The CD-ROM standard can be read by all computers, so if you don't have a CD-ROM drive connected to your Amiga but you do access to on another machine, you can still benefit from a CUCD. Files can be copied from the CD onto a PC formatted 720k floppy disk on either a Mac or a PC and then transferred over to your Amiga via CrossDos.

The audio tracks

Stick CUCD10 in an audio CD player and play track 2 (track 1 is the data track and sounds abysmal). This is Cepheus.23 by Australian Homer J, a sort of techno track with a trancey ambience which swings from relaxed to frantic in a matter of bars.

What's in your drawers?



Root: The root directory of CUCD10 is set up like a Workbench disk, with all the standard directories - C, Devs, Libs, Fonts and so on. You will find that these directories are all nicely packed full of files you can use on your own Workbench if you want.

There are plenty of Libraries, Fonts and so on. If you want to copy anything across to your own system, just use a directory utility such as Directory Opus.

Cover game: Kargon. Click to play.

Image Studio: ImageStudio will run straight from the CD or can be dragged onto your hard drive and used from there. Don't drag this entire drawer unless you want 16Mb of clip art too.

Open the drawer and drag either ImageStudio68000 or ImageStudio68020+ as appropriate.

System: Delitracker, Hippoplayer, GmPlay, Mui, NewIcons, ParNET, Flick, Viewtek, VirusZ and more. All the programs that are used to make your CUCD the most friendly, easy to use and attractive Amiga cover CD.

Tools: A fairly standard Workbench tools drawer.

Prefs: A fairly standard Preferences drawer.

Utilities: Multiview, Clock, Toolalias and some NewIcon utils.

WWW: Demo versions of the major Web browsers - Aweb, Ibrowse and Voyager NG are all here. Alternatively, browse the web without a modem.

Check out sites from Cloanto, Wirenet , the Lair and more. All you have to do is click on the Show_WWW icon and the select which browser you want to use when asked and go!

CUCD: Here's where you'll find the really good stuff.

Online: Everything is here! Amftp, Aminet, AmIRC, Amtalk, Aweb, Ibrowse, Miami, MWM, Webview, Voyager-NG, RFCs, and a whole lot more. If you need comms software, it's probably here.

CD-ROM: AmiCDFS2, Aminet indexes up to Aminet disk 17, MountISO and demos of BurnIt and MakeCD

Graphics: A bumper Graphics drawer this month. The usual collection of great MPEGs, some top Sci-Fi renders, the latest Picasso 96 and Cybergraphix software, QT players, icons, the brilliant Image Engineer, MpMorph and more.

Programming: Patchlib, reqtools, MUI developers stuff for AmigaE, Blitz, etc., Easyrexx, Enforcer, GuiFront Gadtools based GUI layout utility, Arexx, more support for coders than the Silicon Valley orthopaedic braces company.

Demos: A more modest demo section after the amazing Party'96 antics of last month, 20Mb of plasma swirling, tunnel whirling, voxel hurling entertainment.

Information: Enough here to read to wear your eyes down to a knub. Libguide is joined this month by Devguide, and there are sections on computer humour and a guide to all the cards in the "Magic the Gathering" card game. Best of all an excellent collection of Eguide texts, including the King James bible, Alice in Wonderland, The Island of Doctor Moreau, The Picture of Dorian Grey and a lot more.

Utilities: Essentials such as Executive, Toolmanager, KingCon, Mui, Startmenu, Reqtools, a collection of virus killers, a bunch of the latest datatypes, and a whole load more.

Readers: A sizeable collection of readers contributions this month, although we are still way behind in going through it all. Gems include a superb demo of a racing game from Italian reader Paolo Catani, some more art from Belgian Patrice Mille, the updated Greenwoods XTR tracks from Dave Higton and a demo of the excellent Cartoon Studio.

Games: A great huge pulsating bundle of games including a very large selection of text-based adventures, the obligatory Worms levels and Klondike cardsets and a whole bunch more.

Magazine: Some MPEG Audio utilities and a whole stack of stuff for anyone who feels brave enough to try out the Listserv drama of this month's wired world.

Previews: A demo of the latest version of Draw Studio and the Sadeness software preview. Check out Women of the Web and the Hidden Truth.

Sound: Audio FAQ, Midiplay, Mpeg Audio, Hippo for Directory Opus, and of course another bundle of top notch mods and midifiles. To alienate all your neighbours just crank up the volume.



If your CUCD does not load

If your CD does not load contact Diskxpress on 01451 810788. If they advise that the CD is faulty send it along with a SAE to: CU Amiga Magazine Disk Returns, Diskxpress, 7 Willow Court, Bourton Industrial Park, Bourton on the water, Gloucestershire GL54 2HQ.

Please note that some CDs will not autoboot on systems other than CD32s, so try loading it from Workbench first.



▲ Check out the incredible racing game Alien F1 from Italian reader Paolo Catini. Hard to control, great to look at. It can be found in the CUCD/READERS/GAMES.

"World of A1200" & "Top 100 Games" or "Epic En... be upgraded to 1997 version for £12.99) CDs FR...



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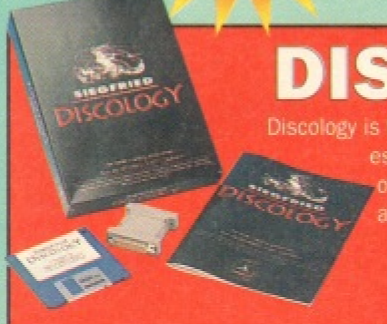
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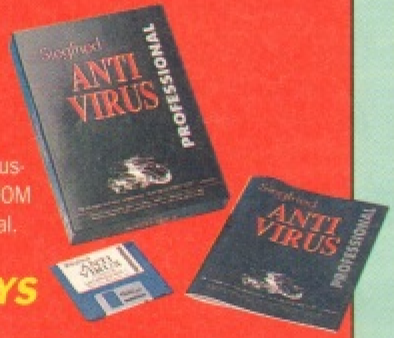
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News

The Future's Bright!

The mists of the Amiga's future are clearing. Things are happening, prototypes are being unveiled, and everyone it seems, wants a piece of the Amiga action. Read all about the most exciting developments in ten years, in our special extended news feature.

The awesome CeBIT show staged this March in Hanover, Germany, was used as a forum for a string of major new Amiga developments: PIOS ONE, PowerPC cards, pOS, A\Box and more were all being trumpeted as the next logical step for the global Amiga community. However, at the moment everyone is talking about cross compatible operating systems as the future of computing.

PIOS Computer Systems stole the show with their PIOS ONE machines, a new breed of highly powerful Amiga-compatibles. Check out the panel opposite for an idea of what it looks like, along with some technical information. Unfortunately for show-goers, the PIOS ONE was not actually up and running. Although the hardware design was thought to have been finalised some time ago, a modification was made just before CeBIT to allow greater cross-compatibility with other operating systems (the addition of Apple's Hydra CHRP system). This alteration had the effect of throwing the whole system, so PIOS didn't quite make the big splash they had intended.

The PIOS ONE machines were designed by former Commodore hardware guru Dave Haynie. He was given a blank sheet to design a new PowerPC based computer in December 1996. Since the design is based around standard components, the development time is much shorter than 100% custom designs like Phase 5's A\Box. The net result is that while the A\Box is still on paper, the PIOS ONE is in prototype stage ready to go into production as you read this.

> **"the net result is that while the A\Box is still on paper, the PIOS ONE is in prototype stage"**

Siamese link

Stefan Domeyer announced that the PIOS ONE machines will come equipped with the Siamese system, provided by German distributors Eagle Computer Systems. However, we spoke to the Siamese developers, HiQ Systems, and while they were in talks with PIOS, no deal had been clinched and more importantly no BeOS or pOS client was being worked on. It's unclear how the the confusion came about but hopefully it can be resolved so that the PIOS ONE does indeed come bundled with the Siamese RTG hardware/software.

The Siamese client software running on BeOS or pOS would enable an upgrade to the PIOS ONE not excluding an existing Amiga system. Far from it, the A1200 would be linked via a newly developed PCMCIA Siamese interface from Eagle Computer Systems. Since it's unclear if the Siamese will be ported to the PowerPC operating systems, these details remain speculative. The matter will be resolved before the next issue of CU Amiga so be sure to check the news pages then.



▲ The Dave Haynie attempting to get the PIOS ONE motherboard running again after CHRP additions.



▲ Proof that a subsidiary of Escom can be reborn; shown here is part of the large Commodore PC clone display at CeBIT, where bags, sweets, lighters and pens were handed out. How the mighty have fallen.



▲ John Smith (left), UK boss of PIOS and Stefan Domeyer (right) CEO of PIOS Computer AG: proudly showcasing the PIOS ONE TransAm running BeOS.

> “Dave Haynie was given a blank sheet to design a new Power PC based computer”

Providing an A1200 and PIOS ONE are linked via a Siamese system, the Amiga display will be retargetted to the PIOS ONE display. Quite how this works will depend on the operating system running on the ONE but for BeOS it's likely that one so-called 'workgroup' will be the Amiga display. As usual the keyboard, mouse and such forth will be redirected to the Amiga so that only one keyboard, mouse and monitor is needed for the PIOS ONE/Amiga hybrid.

To see how well the Siamese is capable of integrating the Amiga with another platform, look out for a review on the PC version of the Siamese II RTG system in the next issue of CU Amiga Magazine.

BeOS system

Another new operating system being touted at the show was BeOS, from the California-based Be Inc. BeOS originally ran on the BeBox computer, a 133Mhz PowerPC 603 machine which was dropped as Be Inc moved to a software only company.

BeOS has been responsible for poaching a number of Amiga programmers already; hardly surprising considering that it has been heavily influenced by AmigaOS.

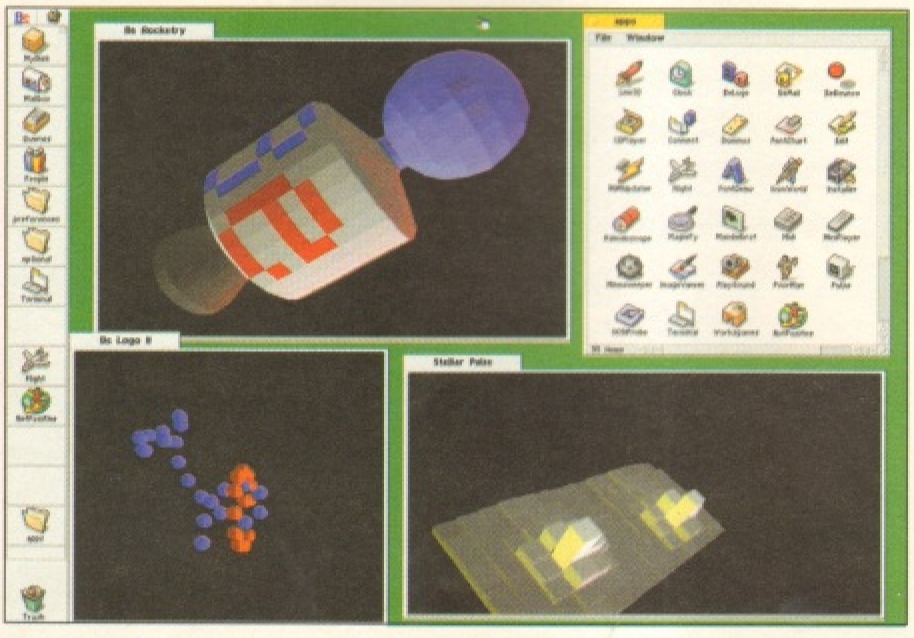
The OS itself sells pre-emptive multithreaded multitasking as a feature, a subject close to Amiga user's hearts. The built-in support for multiple CPUs is a key feature as CPU performance 'maxes out' and parallel processing becomes the best option.

Some effort has gone into BeOS presentation as you can tell from the screenshot below. The developers say they have implemented many of the functions that made AmigaOS so good while re-writing some elements in a totally new innovative way. One such example: the filesystem is a database rather than an on-disk structure. It can be searched in a fraction of a second.

Workgroups are another: workgroups can be running their own programs or have icons and windows in a certain position, changing to another workgroup instantly moves to that environment like an Amiga screen-change. A small window listing active workgroups is on hand for quick navigation.

Currently there's not much in the way of big applications on BeOs. There are, however, a lot of third party developers beavering away on utilities. No-one considers charging for these utilities until the platform is well established. Essential tools like Internet, networking and file conversion utilities are already here.

BeOS is the only worthy GUI based non-Windows operating system for the PowerPC. With the possible addition of the Siamese RTG system, BeOS and AmigaOS are the world's best operating systems and blended in the extremely powerful PIOS ONE TransAM, one can't help but get excited at the prospects.



▲ BeOS in all its glory showing a remarkable similarity to AmigaOS with Newicons. Difference being this is running on a dual PowerPC 603 133Mhz machine and the three windows are smoothly animating 3D graphics.

The PIOS ONE

Now a reality, the PIOS ONE looks like a very attractive option. The PIOS ONE specifications;

SYSTEM:
- Standard ATX sized motherboard CPU board slot for single or multiple CPU boards3 PCI slots
- TransAM: 3 ISA slots

AUDIO:
- Stereo audio in/out 44.1kHz, 16-bit Midi ports in/out
- Internal sound inputs for CD and Aux
- Sound slot for advanced audio features

EXTERNAL INTERFACES:
- 2 x RS232 high speed serial interfaces
- 2 x RS422 'geoport' interfaces
- Bidirectional Parallel port
- TransAM: PS/2 mouse port
- Maxxtrem: Apple desktop Bus port
- PS/2 keyboard port
- 2 x gameport
- 2 x ultra high speed universal serial bus (USB) ports
- Internal Interfaces:
- HD Floppy drive controller
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- SCSI-2 host adapter CPU board:
- PPC 603 family, initially 133 or 200Mhz. Prepared for future CPU families and multi-CPUs512K second level cache
- 3 DIMM sockets for system RAM up to 512MBController for RAM, PCI bus and cache

CONNECTIVITY:
- Ethernet, modem, ISDN cards via economy ISA or high speed PCI

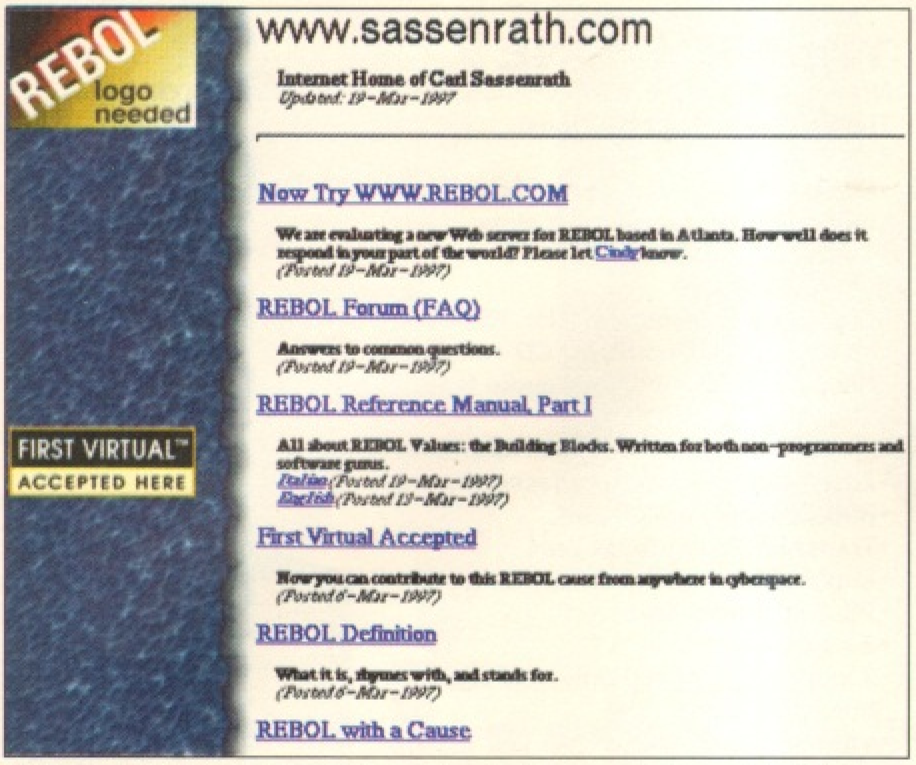
GRAPHICS:
- PCI graphics board, initially shipped with Trio64 S3 2MB VRAM card



PIOS ONE TransAM system

£978 including VAT for example set-up:
- PPC603e 200MHz with 512K level 2 cache
- 16MB of DIMM memory
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- 8 speed CD-ROM drive
- Trio64 S3 PCI graphics card, 2MB VRAM
- CD of software; BeOS, Linux (+ X Windows) and pOS

'Bare bones' systems with no memory, hard drive and CD-ROM will be available according to PIOS' UK manager, John Smith.



www.sassenrath.com

Internet Home of Carl Sassenrath
Updated: 19-Mar-1997

Now Try WWW.REBOL.COM

We are evaluating a new Web server for REBOL based in Atlanta. How well does it respond in your part of the world? Please let Cindy know.
(Posted 19-Mar-1997)

REBOL Forum (FAQ)

Answers to common questions.
(Posted 19-Mar-1997)

REBOL Reference Manual, Part I

All about REBOL Values: the Building Blocks. Written for both non-programmers and software gurus.
Italian (Posted 19-Mar-1997)
English (Posted 13-Mar-1997)

First Virtual Accepted

Now you can contribute to this REBOL cause from anywhere in cyberspace.
(Posted 6-Mar-1997)

REBOL Definition

What it is, rhymes with, and stands for.
(Posted 6-Mar-1997)

REBOL with a Cause

▲ Carl Sassenrath's Web page shows us the error of overcomplex programming languages. On offer is the specifications and philosophy of his REBOL language, complete with the first reference manual installment.

New language

A new language programming called REBOL is currently being developed by Carl Sassenrath. Carl was the creator of the Amiga's 'Exec' and until recently was the resident operating system expert at VIScorp. Originally called LAVA, the project was renamed to avoid confusion with JAVA. So what is REBOL and why does Carl Sassenrath desperately want to invent another language?

REBOL, pronounced 'rebel', is said, in 'general' terms, to be a "small, flexible language for sharing content (documents, databases, programs, multimedia) between people, computers, processes and networks". Sassenrath's web site at http://www.sassenrath.com, goes on to describe in more technical terms that "REBOL is a distributed object language which interprets symbolic, dynamically-scooped, relational environments".

> **"REBOL is Sassenrath's vision for how computing should be rather than how it is."**

REBOL is Sassenrath's vision for how computing should be, rather than how it is. It's supposed to be a simple language to combat the idea that computers need to get more complex to do greater tasks. One thing's for sure, he performed miracles once during the Amiga's development, so perhaps he can again. We'll be keeping an eye on developments, meanwhile a preliminary test version of REBOL is due for release shortly. If at all possible we'll try to get it on the next CU Amiga Super CD-ROM. In true Amiga-spirit, Carl is continuing his project even though there is no official funding for it.

No action on takeover front

Once again, another deadline for the acquisition of Amiga Technologies has passed. The 28th of February was stated as the date for announcing the winner of a new round of Amiga Technologies acquisition bids. There's been yet more complications in the form of VIScorp dropping out of the bid and now it's heavily rumoured that Dan Robinson has split with US 4000T manufacturer QuikPak and that they are not now part of the bid either. However, there's also said to be around a dozen new bidders who have appeared out of the woodwork though no further details have been forthcoming from the liquidators.

There are many rumours but few hard facts at the moment. No official representatives are available or willing to comment at the moment which makes things more difficult for all involved. We're still on the case though and we hope to have some details on the mysterious bidders, if not an announcement of a new Amiga Technologies owner, in the next issue.

The Motorola PowerPC

CPU	Clock	SPECint95	SPECfp95
PPC603e	133	3.95	3.1
PPC603p	166	4.0	5.3
PPC603e	200	5.9	4.67
PPC604	133	5.23	4.86
PPC604e	200	7.65	6.58
Pentium	200	5.10	5.10
Pentium MMX	200	5.59	5.59

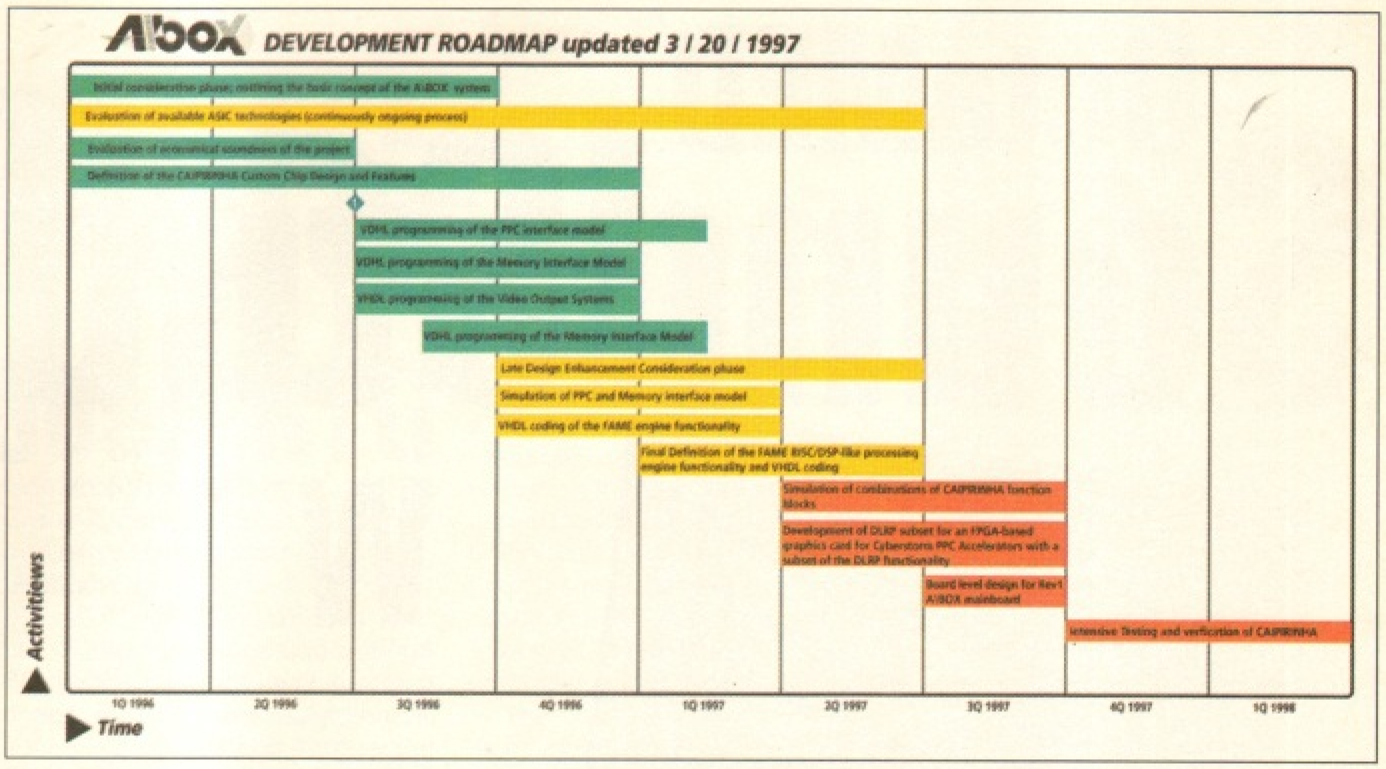
So just what is the PowerPC and why should we be excited about it? Motorola have a history of redesigning their CPUs from scratch every decade or so. Doing so may have meant that they didn't become as popular as the Intel rivals but because of the rethink they were generally faster, cheaper and easier to program than the equivalent Intel chips. The 680x0 series is about the equivalent of the 80286-80486 Intel chips in terms of architecture and performance (though superior in many ways) while the 68060 resembles a Pentium. Sadly since Apple jumped to the PPC early, the 68060 never had the manufacturing technology upgraded for much higher clock rates. Instead Motorola teamed up with IBM and Apple to produce a new super processor which would compete with the best Intel had to offer. This resulted in the PowerPC. These chips are firmly RISC designs and not hack on attempts like Intel's. For this reason even the inexpensive PPC 603, intended for portable low-end applications, matches the Pentium at the same clock rate. The later CPUs like the enhanced 603e and the 604/604e series are still cheaper and yet considerably faster. The 604e even outperforms the ultra expensive Pentium Pro.

Best of all, you don't need to run Windows on them. In fact it's rumoured that Microsoft wanted a payment of around US$600 million to develop Windows NT 5 for the PowerPC. At this point Motorola and IBM decided it was time to part ways with Microsoft, a luxury they could afford since a few Unix OSes already run very well on PPC machines, as does MacOS, BeOS and the forthcoming pOS from ProDAD. All of these are more efficient than Windows before considering the hideously fast PowerPCs. Unlike Intel, Motorola's core business is in making a wide variety of silicon including embedded microcontrollers, many of which are based on the 680x0 series. The future of the PowerPC architecture is looking extremely bright at the moment; The new 2.5V 'p' series of the 603 and 604 are set to reach clockrates of 300mhz shortly and the new G3 CPU range, code-named Arthur, looks to be so far ahead of the competition, the industry may need to rethink who's top dog.

The bottom line is that a PowerPC machine is much faster than a PC, even a Pentium with so-called MMX technology. Couple that with a more efficient, faster operating system and computing takes on a new meaning.







A\Box Update

Interest in Phase 5's PowerPC based Amiga replacement the A\Box has been at fever pitch since our February issue preview. Although A\Box is a long way behind the less technically innovative but imminent PIOS ONE, development continues.

Phase 5 have been concentrating on the development of their PowerUp PowerPC boards, which they see as a step towards the eventual release of the A\Box, with development of the revolutionary Caipirinha chip to follow. Phase 5 plan a Caipirinha based graphics card spin-off for Cyberstorm PowerPC systems later this year, building up to a proposed launched of the A\Box itself in a year's time.

Roadmap

Phase 5 have released a development 'roadmap' (top right) to keep people up to date with progress on the A\Box. Bars in green represent completed tasks, yellow for current tasks, and red for future tasks yet to be started.

The A\Box has been in planning since late '95, and the Phase 5 ASE (Advanced Silicon Engineering) group was set up mid last year. They are currently working to a schedule of public presentations of the A\Box in November with deliveries to developers by the end of 97, and a product release in spring '98

With the PowerPC based PIOS ONE supporting the pOS operating system, and Phase 5 using their own OS for PowerPC cards and the A\Box, the spectre of a VHS/BETAMAX like struggle for supremacy has got the Amiga community concerned. Phase 5 explain.



"An operating system ... can not be evaluated from looking on a nicely designed GUI; it must be evaluated running completely independent from any proprietary features (or OS code) of the Amiga itself, showing multitasking and multiprocessor support, as well as all the necessary support for graphics, sound, drivers for SCSI, Ethernet, ISDN, other devices and anything else that counts.

"We have spent a lot of money and efforts (and will spend even more) into our current developments, and we need to make sure that we have a working OS solution that fulfils all the demands of future computing. As we had announced earlier, we do have a fully AmigaOS 3.1 Exec running... However, a next generation OS needs significant enhancements, so we can't see that an OS which is extremely close to the AmigaOS 3.x can fulfil the demands. That's also valid for pOS; therefore we won't use or support pOS unless we can be convinced that it is a true, working and complete alternative. "

Phase 5 go on to voice concerns about their hardware being dependant on another company's software, but have left the door open to a future port.

Details on Phase 5's own alternative are a little sketchy. They have specified a UNIX kernel as the OS core, as this is a proven and powerful system. AmigaDos has always had a lot in common with UNIX.

Amiga + Unix =?

By implementing an OS with the shared library and device support of AmigaDOS, modern UNIX systems and the memory handling features that UNIX supports but AmigaDos doesn't, Phase 5 plan on producing an OS which has the power of a modern system and the efficiency and friendliness that makes AmigaDOS so special. With features such as multi user support, multi processing and an object oriented structure allowing transparent system plug ins, the new OS could really be an AmigaDOS for the next decade – mean, lean and multitasking.
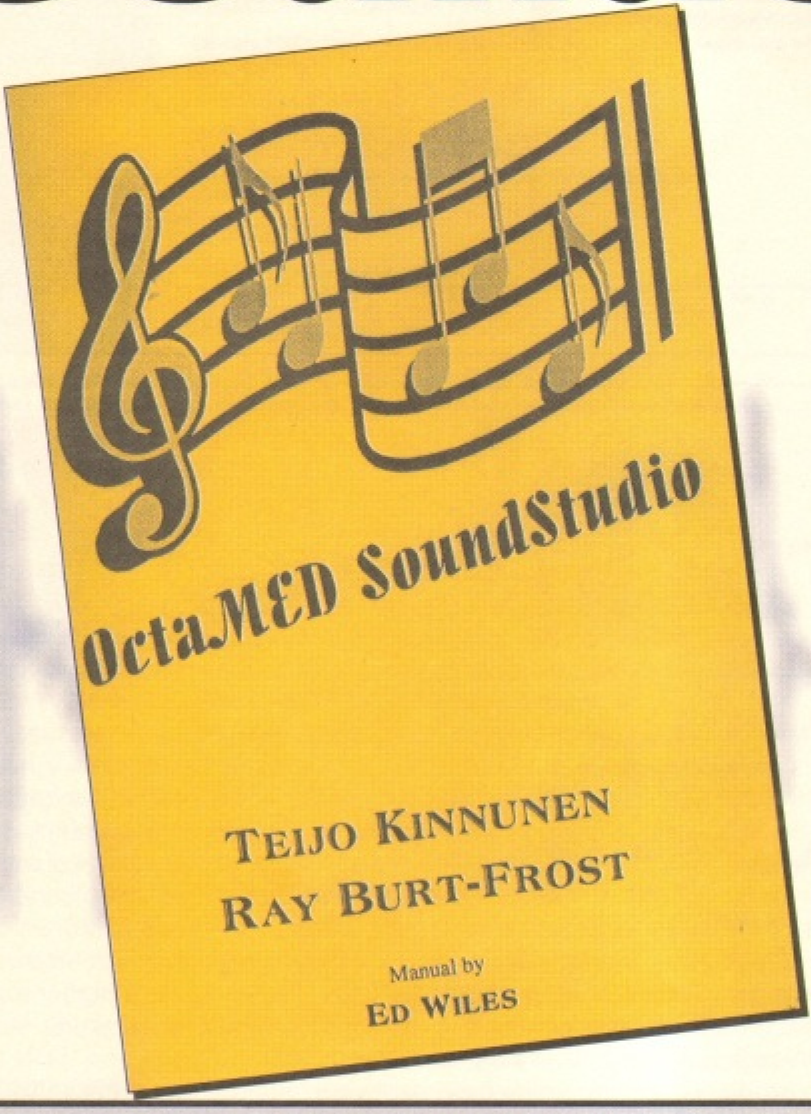
On a day to day level, Phase 5's OS will resemble AmigaDOS, with a similar look and feel, systems similar to datatypes and Rexx, an Amiga-like CLI, and a "Virtual Amiga Machine" which will run original Amiga 680x0 binaries. There will be a higher level of implemented functionality, including SCSI, Ethernet and ISDN drivers, audio and graphics device drivers, and TCP/IP protocols. Phase 5 hope to have alpha and beta releases of the A\Box OS available for developers running PowerUp accelerators by the end of summer. The long and the short of it is that A\Box should be poised for an exciting head-to-head with PIOS ONE.

Direct Software's Power Amiga

Direct Software are planning to sell a tooled-up Amiga, known as the Power Amiga. The machine consists of an A1200 motherboard in a tower case with seven Zorro slots. A Picasso IV graphics card will be included in one of the Zorro slots. Direct Software also plan to offer an upgrade path so that an A1200 may be swopped for the tower system, removing the extra cost of a new A1200 motherboard from the overall price.

It's planned that the 'mark 2' version will come fitted with the forthcoming PowerUP PowerPC accelerator card from Phase 5. The hard drives are said to be installed with Workbench 3.0, PD software and other unconfirmed software titles. Direct Software also claim they are in contact with third party software developers to convert PC and Mac titles to the Power Amiga. Check out the news pages in the next issue of CU Amiga for more information.

OctaMED SoundStudio MANUAL



With the March 1997 issue, CU Amiga Magazine exclusively brought you OctaMED SoundStudio, the Amiga's best music software package. Over the years, this incredibly powerful program has grown from a simple SoundTracker clone to a system that cannot be matched by any other package. It has sprouted a whole load of features since it became known as SoundStudio. But rather than be held back by the power of the program, turn it to your advantage and you could be on your way to a sparkling musical future. At the very least you should be able to knock out a few good tunes.

To get the best from SoundStudio you should really get hold of the official printed manual. You'll find this an invaluable tutorial and reference source which covers just about everything you could ever need to know about the program.

You can obtain the manual via this offer for just £7 inclusive of post and packing.

This offer is being handled directly by RBF Software. Do not send anything in connection with this offer to CU Amiga Magazine. The address to send your order to is: RBF Software, 169 Dale Valley Road, Hollybrook, Southampton SO1 6QX. Tel/fax: 01703 785 680.

Free SoundStudio CD-ROM!



Limited stocks of the original V1.0 CD-ROM release of OctaMED SoundStudio are now FREE when placing orders above £25.00 with Weird Science. See their advert in this issue for details of their wide range of other CDs. This original SoundStudio CD edition comes packed with samples and mods for use with the program to give you a big headstart on that road to musical success.



Order that manual NOW!

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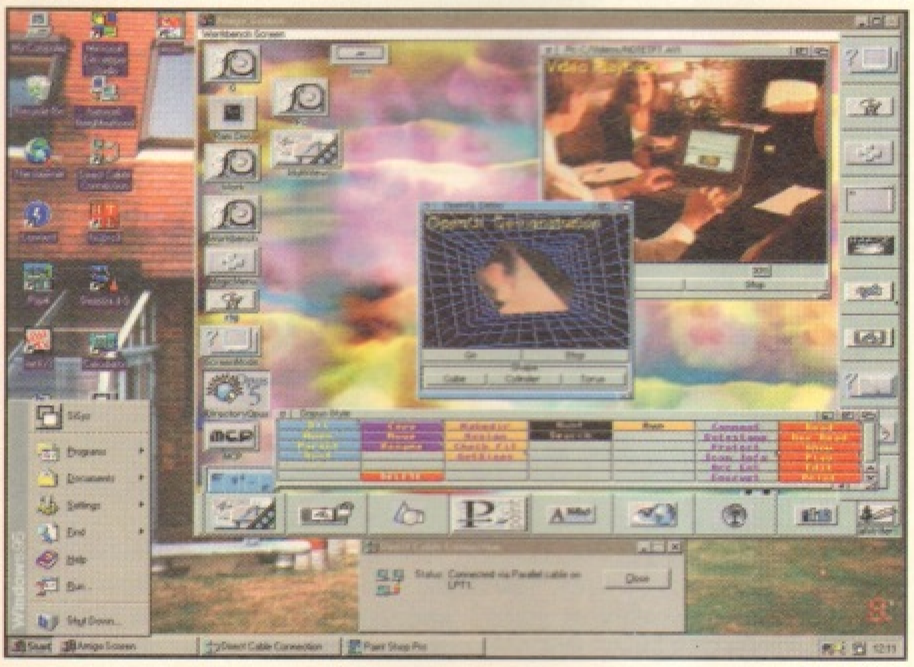
Please enclose a stamped addressed envelope for notification in the case that stocks run out.

News

Siamese Goes RTG

The Siamese system from HiQ is undergoing a revolution: the development of retargetable Amiga/PC integration so Amiga screens can be displayed via the PC for fast 256 colour displays.

The Siamese system allows shared clipboards, monitor switching, PC partitions mounted on Amiga Workbench, shared printers and so on. The addition of the Siamese RTG option brings the degree of integration even closer, allowing cut and paste operations between Amiga and PC applications running side by side in separate windows. Communication speeds can cause problems with retargetting displays containing large bitmaps, but HiQ claim that for general use the display advantages of modern PC graphics cards allow applications such as Workbench to run at speeds comparable to Amiga graphics cards. Siamese RTG even opens the possibility of Amiga OpenGL support on a PC 3D graphics card. For more information Http://WWW.Siamese.co.uk on the net or phone HiQ on +44 (0)1525 211327.



▲ Now you'll be able to cut and paste between Amiga and PC applications thanks to Siamese.

Games Chart

This month's games chart is based on sales over the past month and is sponsored by Direct Software.

No.	Title	Publisher
1.	Worms - The Director's Cut	Team 17
2.	Sensi Soccer 96-97	Sensible
3.	Minskies Furballs	Binary Emotions
4.	Capital Punishment	ClickBoom
5.	Sensi Soccer data disk	Sensible
6.	XP8	Effigy
7.	Tiny Troops	Vulcan
8.	Hillsea Lido	Vulcan
9.	Pinball Prelude	Effigy
10.	Valhalla 3	Vulcan

Ateo Concepts Expansion Bus

French based Ateo Concepts have announced the development of a new expansion bus for the A1200.

Ateo are very secretive about their new product but what we can tell you is that it is similar to a Zorro break-out board, but using a different interface standard. Other new projects include four cards for use with the board, a graphics card based on the Cirrus Logic GD5434 chip with 1 or 2Mb of graphics RAM, which Ateo describe as "faster than a Picasso II", a multi I/O board, a SCSI2 8-bit controller and an ethernet card.

The Expansion bus is designed as an add-on for tower conversions, although Ateo have told us they will consider the possibility of a stand alone. And the really revolutionary thing about the product? The price. Nothing is fixed in stone, but Ateo told us they were hoping to release the board bundled with the graphics card for somewhere around £160.
Contact Ateo Concepts on tel: 01705 790211 in the UK, or 00.33.2 40.85.30.85 in France.

New NewIcons

The replacement icon system, New Icons, which CU Super CD-ROMs use version 3 of, is due for an upgrade soon. Version 4 is due to be released in the Spring. The authors claim it will be faster, feature transparent icon dragging, icon text outline/shadow and yet still remain totally free Sounds good to us so you can be sure it will be found on a CUCD near you just as soon as it's released.

Almathera RIP

We are sad to announce the demise of Almathera Systems Ltd., producers of the excellent Photogenics. On the 17th of March 1997 Jolyn and Paul Ralph posted a declaration on the internet that they had ceased trading. Almathera had been working on a project with Viscorp to produce a core part of the set-top box operating system the vui.library. According to the announcement, Viscorp have been unable to pay, contributing to the cashflow problems which lead to their failure.

Almathera

News in brief

F1 Licenceware Seek Authors.

F1 Licenceware are seeking quality software to add to their catalogue. F1 Licenceware is distributed via normal PD channels, but at a higher price, as part of the cost goes to the author. For more details contact them on tel: 01392-493580

Finale Development

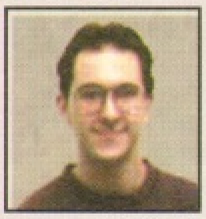
Finale development have announced two products for the Amiga and pOS: MOca and Web Cruiser.
MOca is a Java virtual machine. Java compiles to 'byte code', designed to run on a virtual CPU. By running MOca, Java programs can be run on the Amiga. Web Cruiser is a new Browser which boasts integrated mail, news, FTP and gopher clients, full HTML 3.2 support, and Java support through MOca.
Check out them out on WWW.Finale-Dev.com

Sadeness Bargains

Sadeness software are selling overstocks of the Utilities Experience vol1 CD for an incredible bargain price of £2.99 plus 50p P&P. An excellent collection of tools, we gave this disk 90% when we reviewed it in August last year, and then it cost a tenner more.
Contact Sadeness Software on 01263 722169.

New Software From Budapest

Arthur Wilkins Software, from Hungary, have announced a range of new, affordable software for the Amiga and Draco. Products include AW-Afteralias, an antialiasing program for animators, AW-Freeze for software freezing video frames, a package of ADPro plugins called AWFX1, and Bigdisk, which allows partitions of over 4Gb to be used by AmigaDos.
Contact Arthur Wilkins software on (+36-1) 2212281.



Stateside News

by Jason Compton: Jason Compton is Editor in Chief of Amiga Report Magazine

Imagine 5.0 Can't Get Much Cheaper

Impulse Inc., the publishers of the Amiga 3D package Imagine 5.0, have cut the price of the Amiga package to US$100. They also made a statement to Amiga users saying that: "Impulse is doing our best to keep the Amiga alive but without the support of the user base out there it becomes more difficult every day."

Imagine 5.0 brings ARexx and CyberGraphX support to the already powerful Imagine 4.0 core. For more information telephone Impulse on 612-425-0557, or fax 612-425-0701. Impulse can process orders via credit card and ship worldwide.

You can also visit Impulse online: point your browser to www.coolfun.com.

clickBOOM Inks Deal for Myst!

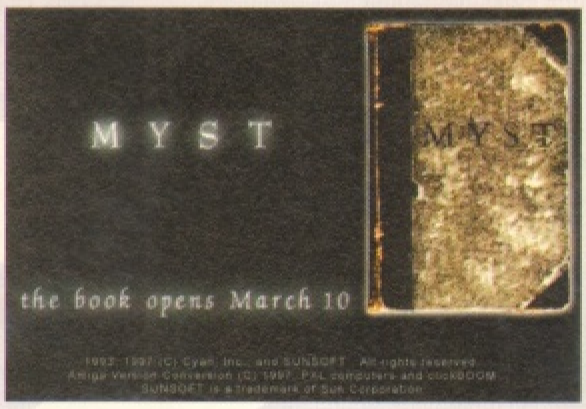
CLICK BOOM

Stop the press! What was once a dream and an illicit little demo has turned into a commercial reality!

After the furore generated by last summer's 'Myst Demo', a convincing but completely fake concoction of a clever Polish Amiga user, Cyan, the creators of Myst, began taking the idea of an Amiga port very seriously. Cyan consulted with a number of movers and shakers in the Amiga industry to gauge the potential for such a conversion, and after months of negotiations, Canada's number one Amiga game company made a deal happen.

Alexander Petrovic, the man behind clickBOOM, has sealed a deal with Myst's publisher, Sunsoft, for an Amiga conversion. And according to Petrovic, the deal with Sunsoft stipulates that time is of the essence and clickBOOM is projecting Amiga Myst's availability before too long into the summer. Count on CU Amiga Magazine to cover the development and release of the biggest Amiga conversion to come along in quite some time.

For those of you who want to follow Amiga Myst as it unfolds, be advised that clickBOOM's web site has moved: they are now located at home.ican.net/~clkboom. Capital Punishment owners would do well to check there for patches to the game: currently, there's an upgrade that fixes the remaining 040 and 060 compatibility difficulties in the game.



Bloomberg News Profiles Amiga Situation

The Bloomberg Business News organisation continuing its interest in what is happening to the Amiga has run a major story on the Amiga and its users.

Although the article doesn't say much we don't already know, and despite some comparisons to the Macintosh that might grate at some users, Bloomberg gave a fair assessment of the Amiga and its users to its worldwide readers.

The author, a Chicago-based Bloomberg contributor, John Stebbins, travelled to Atlanta for an Amiga Atlanta user group meeting to see what a room full of Amiga users was like, what they thought, what they were all about. He also called a number of US Amiga luminaries to try to understand the worldwide phenomenon a bit better.

The Bloomberg Business News has kept its eye on the Amiga situation in the past year. It was the first major newswire to carry information about VIScorp's attempts to acquire Amiga Technologies and as the saga went on some of its staff became intrigued by the situation. This intrigue prompted the story.

New Name, New Focus

The expo formerly known as the Montreal Amiga Convention is now to be known as the first Power PC Convention and is due to be held on July 19th and 20th, at the Howard Johnson Sherbrooke in Montreal, Quebec.

Dedicated to promoting all PowerPC-based computers and operating systems, convention organisers say they already have booked PIOS as an exhibitor and the PowerPC computer manufacturer will be there with their PIOS One computer running pOS and BeOS.

With Phase5's PowerPC cards scheduled for May release, the Amiga looks like it will be the youngest entrant to the PPC club by the time the show arrives. The organisers plan to welcome users of the BeBox, PIOS One, PowerMac IBM and Motorola PowerPC-based machines, as well as PPC Amiga fans and those waiting for the Phase5 A\Box 'supercomputer.'

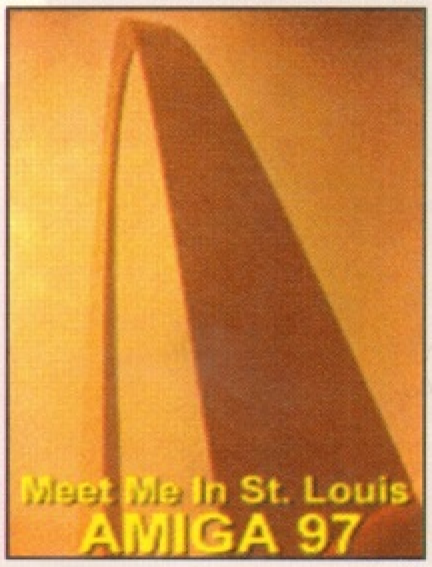
For more information, contact Frederic Tessier on tel: 514 649 9756 or Email:tessier@moebius.qc.ca. Table space is available to potential exhibitors and users are welcome to bring their machines to place at one of the allocated free table areas.

Nova Design Exec Hosts DevCon at Gateway

The Gateway Amiga Show in St. Louis will see an all-too-rare occurrence – the meeting not only of Amiga users from across the country but of Amiga developers from across the continent.

Kermit Woodall, Vice President of Nova Design, the publishers of the top-notch ImageFX image processing package for the Amiga, has organised a developer conference for the Sunday morning of the show. Woodall's vision is to form an international alliance of developers who can, among other things, solidify standards for things Commodore wasn't around to address and Amiga Technologies never got around to addressing such as: new IFF and Anim standards, 32-bit graphics handling and the like.

Developers can subscribe to a specially formed mailing list by sending a request to newdev-request@lists.best.com with the word 'SUBSINGLE' in the body of the message. For more information contact Kermit Woodall at kermit@novadesign.com or in his Nova Design office on tel: 804-282-6528.



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33.6 External Voice Modem BABT Approved with PSU/Cable and *IN-TO-THE-NET* twin CD software. Everything to access the internet on your Amiga or PC!

Complete Solution £ 99.95

EXPAND your AMIGA ... with CONFIDENCE!

Blittersoft

At last there is a custom made Amiga 1200 Tower that provides all the expansion you could possibly want, whilst maintaining compatibility in a *"future-proof"* design! This fantastic system, sold exclusively by Blittersoft, allows you to upgrade in a unique manner :

Amiga *PC* *Macintosh*



PCMCIA Adaptor

Additional "Snap-On" 3.5" Bay

Additional "Snap-On" 5.25" Bay

Upgrade your Processor!

PPC for Amiga has arrived!

Amazing performance can be achieved with the A1200, so why not add a high powered accelerator!

Blizzard 1260 (50MHz) for A1200	£399.95
Blizzard 1240T/ERC (40MHz)	£249.95
Blizzard PPC 603e (Requires 68030)	£279.95
SCSI-II for all CyberStorm versions	£ 89.95
SCSI-II for Blizzard 1260 and 1240	£ 89.95

Supercharged Graphics!



Picasso IV is a completely new development comprising a superb new Graphics system, flicker fixer, 4 channel stereo selector and amazing expansion capabilities!

64-bit Cirrus CLGD 5446 Chip
4Mb Fast EDO RAM
On-board Flicker Fixer
VGA O/p, Stereo in/out, Video S-VHS/FBAS in/out, TV in, Amiga Audio in, CD-ROM Audio in
Genlock compatible with Pablo II
New Picasso 96 Software
Ports for additional MPEG, TV-Tuner 3D Chip and Sound Modules

Picasso IV 4Mb £299.95

Got an Amiga 4000???

Tower Upgrade Kits for the A4000

The A4000 can also be upgraded to increase the number of Zorro III slots as well as add PCI and ISA slots for our "all-in-one" Pentium cards. This opens up the same Amiga/Mac/PC power house that the Infinitiv range gives to the A1200. In addition, the full height Tower unit also vastly increases the expansion capabilities for new peripherals.

Our system comprises of a full height Tower offering huge expansion capabilities as well as 7 Zorro III slots, 3 PCI slots, 3 ISA slots and 1 Video slot.

Tower 4000 PCI System £379.95

Infinitiv 1200 Options

The Infinitiv 1200 Tower is custom made for the A1200. In it's standard form, it is a Midi sized unit which is upgradable with "snap-on" 3.5" and 5.25" bays. The motherboard is mounted on a slide in tray for easier installation. There are various add-on modules available but we also provide two complete kits, detailed below :

Infinitiv A1200 PCI :	Infinitiv Tower, Uprated PSU, built in Keyboard adaptor (Amiga/PC), PCMCIA adaptor, Expansion board offering Zorro II x 5, ISA x 2, PCI x 2 and full Video slot.	£369.95
Infinitiv 1200 PCI KB :	As above but includes an external case and cable to re-house your existing A1200 Keyboard.	£399.95

Infinitiv Tower + Amiga/PC Keyboard interface	£159.95
Infinitiv 3.5" "Snap-on" bay	£ 12.95
PCMCIA Adaptor	£ 24.95
Infinitiv Zorro II/ISA/PCI/Video expansion	£189.95
External Keyboard case	£ 49.95
IDE Cable 2.5" to 3.5"	£ 14.95
Infinitiv uprated PSU	£ 49.95
Infinitive 5.25" "Snap-on" bay	£ 29.95
Infinitiv Video Slot Interface	£ 39.95
Power Adaptor	£ 9.95
Windows 95 Keyboard	£ 19.95
High Density Infinitiv Floppy	£ 59.95

Add a performance PC!

Our *PC Pentium Boards* are easily fitted to the Infinitiv Tower system. This means that you can take advantage of a super-fast Pentium system (up to P200!) all conveniently located in a stylish case.

- *Processors from P75 to P200*
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- *PCI or ISA based systems*
- *EIDE and Cache*
- *Floppy and HDD Controller, Keyboard socket*
- *64Mb RAM capability.*
- *OnBoard SVGA output on ISA model*

Pentium PCI Board	£349.95
Pentium ISA Board - On board VGA	£369.95

Pentium CPU / RAM

Pentium P120	£ 99.95
Pentium P133	£129.95
Pentium P150	£149.95
Pentium P166	£249.95
Pentium P200	£429.95
8Mb SIMMs	£ 39.95
16Mb SIMMs	£ 89.95
32Mb SIMMs	£149.95
8x CD ROM drive (Internal SCSI)	£149.95
PCI S3 ViRGE 2Mb 3D (U/G 4Mb)	£ 59.95
Sound Blaster AWE 32 PnP	£149.95

Integrate, add a Mac!

The Siamese System is the means to allow the Amiga and PC to integrate neatly.

- Single Monitor automatically switches between PC and the Amiga Screen.
- Share Keyboard and Mouse across both platforms.
- Serial networking with all Amiga mounted PC drives.
- High speed SCSI network with suitable SCSI interfaces.
- Read and Write on any PC Drive at high speed, including Networked Drives.
- Text Clipboard, Cut and Paste between Amiga and PC.
- Full Arexx support built in.
- Share Printer, all Amiga output sent to PC printer.
- Access to low cost PC products eg. 16 bit Sound Cards.
- Amiga MCI controller from AmigaDos or Arexx, (Media Control Interface).
- RTG - Retarget the Amiga video to your PC Video board!

Siamese System 2.0	£199.95
Siamese-Mac Pack 2.0	£219.95

Also includes a full Macintosh emulation module.

Blittersoft Distribute Some Of The Leading Amiga Products Available - Take a look!

PHASE 5

CyberStorm MKII 060 (50MHz) for A4000(T) or A3000(T)	£479.95
CyberStorm MKII 040/ERC (40MHz) for A4000(T) or A3000(T)	£319.95
CyberStorm PPC 604e-150 *	£499.95
CyberStorm PPC 604e-180 *	£359.95
CyberStorm PPC 604e-200 *	£699.95
SCSI-II for all CyberStorm versions	£ 89.95

* All require 68040 or 68060 placed in socket

VILLAGE TRONIC

Picasso IV	£299.95
Picasso II+	£199.95
Pablo Video Encoder	£ 79.95
Ariadne	£149.95
AmiTCP	£ 69.95
OS3.1 packs A500/600/1500/2000	£ 74.95
OS3.1 packs A1200/3000/4000	£ 89.95
OS3.1 A500/600/1500/2000 ROM only	£ 44.95
OS3.1 A1200/3000/4000 ROMs only	£ 59.95
MainActor Broadcast	£149.95
Liana Network cable + Envoy (1.8M)	£ 59.95
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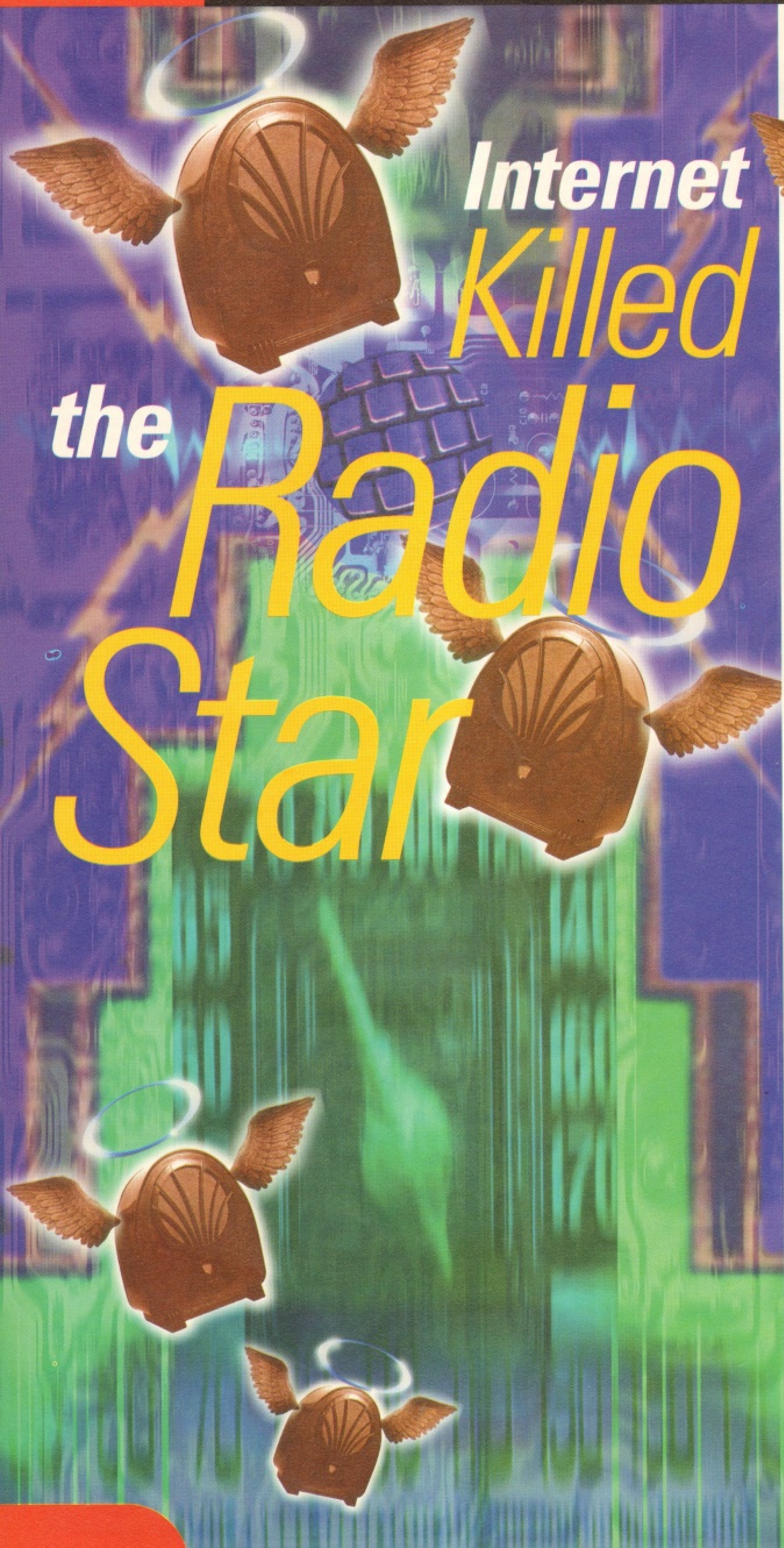
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Internet Killed the Radio Star



Exciting times are afoot. Established institutions such as radio and the record business could be on the brink of a revolution and it's all thanks to some incredible developments in Internet audio transmission.

A lone figure sits at his computer, hits a button and starts talking at the screen, as if chatting to an old friend. To one side is a bank of knobs and faders, a clapped out pair of turntables, a CD player and a dusty tape deck. The opening chords of a classic Floyd track escape from the mixer, as a voice-over mumbles "... this one goes out to Greg down there at Davis Station, Antarctica. Your mum sends her regards and wants to know if you'll be back in Darwin for Christmas ... we're taking Email requests and dedications right through the next hour, so don't be shy..."

It's Internet radio in action, simultaneously transmitting to listeners right across the globe, and it's fact not fiction. Technology has a frighteningly exciting habit of re-writing the rulebooks, and the latest advances have just done that once again. Until now, it was simple. Radio was a controlled medium, with a finite amount of bandwidth restricting the amount of different transmissions that could be made at once, with a transmission range that's severely limited. Regulated by official bodies, it was all kept neatly in check. Basically, it was a closed shop, with tough laws to combat anyone who tried to get in on the act via pirate radio.

Likewise, the whole system of commercial pop music distribution was set in

stone. Record companies made the records, plugged them on the radio, a distributor sprinkled them around the nation's shops, and you went and bought them. Nice and simple, nice and cosy. Everything under control.

Now computer technology is set to pull the rug from under both of these traditional set-ups. With the combination of advanced digital audio compression methods and the evermore sophisticated Internet tools, we could soon see a revolution in music transmission and distribution. Anyone with a hi-fi and and Internet access could set up their own radio station. By the same token, that same person could also distribute near CD-quality copies of commercial records to millions of 'customers' around the globe, virtually for free. On the other hand, if the record companies were to turn this to their advantage, they themselves could actually use the same methods to sell their music, totally eradicating costs of media duplication, packaging and distribution.

But with Internet bandwidth and transmission rates still comparatively low, how could such a system really work? Believe it or not, it all stems from the technology behind video CDs.

MPEG audio

The reason this has not been a viable option until recently comes down to that low bandwidth of a typical Internet connection. In other words, there's only so much information you can squeeze through your average modem, much less than is required by a stream of CD quality 16-bit 44.1kHz audio data. Previously the only way to pass a reasonable quality digital audio signal along the Internet in real time was via Real Audio, an acceptable but hardly high fidelity system. Real Audio's creators have no interest in converting the system for use with the Amiga, but that's no longer a problem, as MPEG audio compression is now the front runner, for which Amiga software is available.

Some years ago, the Motion Picture Experts Group decided they should find a way to surpass the VHS video standard by storing moving pictures and sound on CDs. Based on the standard access rate of CD player, they were faced with the enormous task of passing full screen video pictures and high quality sound through the eye of a needle. Their solution was to invent a 'lossy' compression system which they named after themselves: MPEG. This system drastically reduces the amount of space required to store the pictures and sound by throwing away big chunks of information that it thinks your eyes and ears could do without. It works a bit like the JPEG compression method, in so much as greater compression can be achieved by increasing the amount of data that is discarded. However, unlike a simple down-sampling process, a crude but very simple method of compressing a digital sound wave, MPEG audio compression manages to retain high fidelity whilst drastically reducing the size of the data required. It's the third revision of their audio compression system (Layer 3 MPEG) that has lead to these remarkable developments in digital audio transmission. See the panel on the following page to find out how it manages to work such a miracle. It's unlikely the MPEG group ever realised what a can of worms they would be opening with their pioneering work. While there are many incredibly useful and totally lawful uses for MPEG audio transmission, as usual there's no shortage of unscrupulous enthusiasts ready to use the fruits of their labours to their own dodgy ends, as illustrated in the Email message on the right.



Playing with fire

If you play with fire you can expect to get your fingers burnt. The Internet is a hotbed of copyright infringement and these advances in digital audio transmission have thrown up all kinds of legal issues. There's a common belief that it's OK to distribute pirate copies of software or music so long as you use phrases like 'Enter at your own risk' and 'The Webmaster takes no responsibility for any software on this site'. This of course, does not clear either the provider (the Webmaster) or the receiver (the downloader) of any copyright breaches that would inevitably occur from the unlicensed distribution of commercial music.

Mainly due to the sheer size of the Internet, much of this goes on with no action taken. However, here's an example of what can happen when news gets back to the big boys of the music biz. The following Email was posted at the URL address of a web site that was supplying MPEG copies of copyrighted music and comes from Geffen Records, home to Guns and Roses among others.

This site is temporarily down after receiving this Email:

```
Date:     Wed, 19 Mar 1997
          01:16:31 -0800
From:     Jim Griffin
To:       xxxxx@xxxx.xxxx.com
Subject: Ha!

So you think it is OK to print
a headline in large type
suggesting others join the
audio piracy revolution, but
you will be OK because you
have fine print at the
bottom in the form of a
disclaimer? Ridiculous!

You will be lucky to avoid
being made an example of ...
check out my domain name if
you have any doubt. Make
this disappear or suffer
the consequences.

I am doing you a favour by
warning you ... the next
letter will be from lawyers.

Jim Griffin, Director of
Technology, Geffen Records
```

Now that the word is out among the money machine that is the US record industry, you can be sure that plenty of resources will be put into tracking down similar set-ups.



▲ The Internet has been abused for many years and now it's pirate copies of commercial music that make up the latest batch of illegal traffic. This is a typical example of how you can be presented with all manner of ripped off soundtracks in MPEG format.





▲ It's not all crooks and piracy you know. This site is set up by a musician who wants to get his computer-created music heard. It's just one example of the many legitimate uses of MPEG audio transmission over the Net.

The piracy angle is the most obvious and sensational aspect of this whole thing, but rather than get all frothed up and righteous about that (there'll be no shortage of others willing to rise to the challenge), we'll take a look at some of the more interesting legitimate uses for Layer 3 MPEG audio compression. It's not just would-be radio DJs that can take advantage. There's plenty of scope for inventive use of the system from anyone who wants to transmit or transfer sound



cheaply, quickly and effectively from one place on earth to another. The web site on the left for example, uses MPEG audio for distribution of the webmaster's own original musical creations.

Global airwaves

Internet Radio stations have existed for a while, but they were based on the proprietary RealAudio standard which the developers refuse to port to the Amiga. Now these stations are moving to MPEG which offers better audio quality at the same data transfer rate. Since MPEG audio Layer 3 is a public standard, an Amiga port should be forthcoming as a plug in for browsers, or even for direct connection.

This furthers the copyright quagmire that surrounds the technology. What if you can set up an unlicensed Internet radio station in his back yard and broadcast the entire Prodigy back catalogue day after day? All you need is a £500 encoder box connected to your computer and a leased line to an Internet provider. How is this any different from large scale piracy of commercial recordings? Record companies may be less bothered by low quality streamed audio (and possibly grateful for the publicity) than the high quality file-based piracy already widespread, although it's unlikely they're going to turn a blind eye all this once it takes off.

Currently, broadcasters in the UK must register with the Performing Rights Society. The PRS is the body which looks after the interests of song-writers, but charging and collecting fees for any records that are played on the radio or TV. The PRS would have to be one port of call for anyone who wants to set up a commercial Internet radio station, but that wouldn't clear things up for good. It's odds on that any such set-up with a high enough profile would soon find itself in all sorts of legal wrangles. Then of course there's the on-going Internet grey spot of transmitting or operating from countries who don't recognise international copyright law ...

Piracy hysteria

Before the multinational record companies get too defensive, they should take a step back from the hysteria of the piracy theme and work out how they could use the situation to their advantage.

Some would say record companies will need to adopt the model of a software house. Their products would then no longer solely be physical objects (records, tapes and CDs) sold in a record shop but rather a software commodity. They would be purchased from a web site, for example, by listening to a low quality preview first and then ordering the CD quality version, which could be cut to an actual

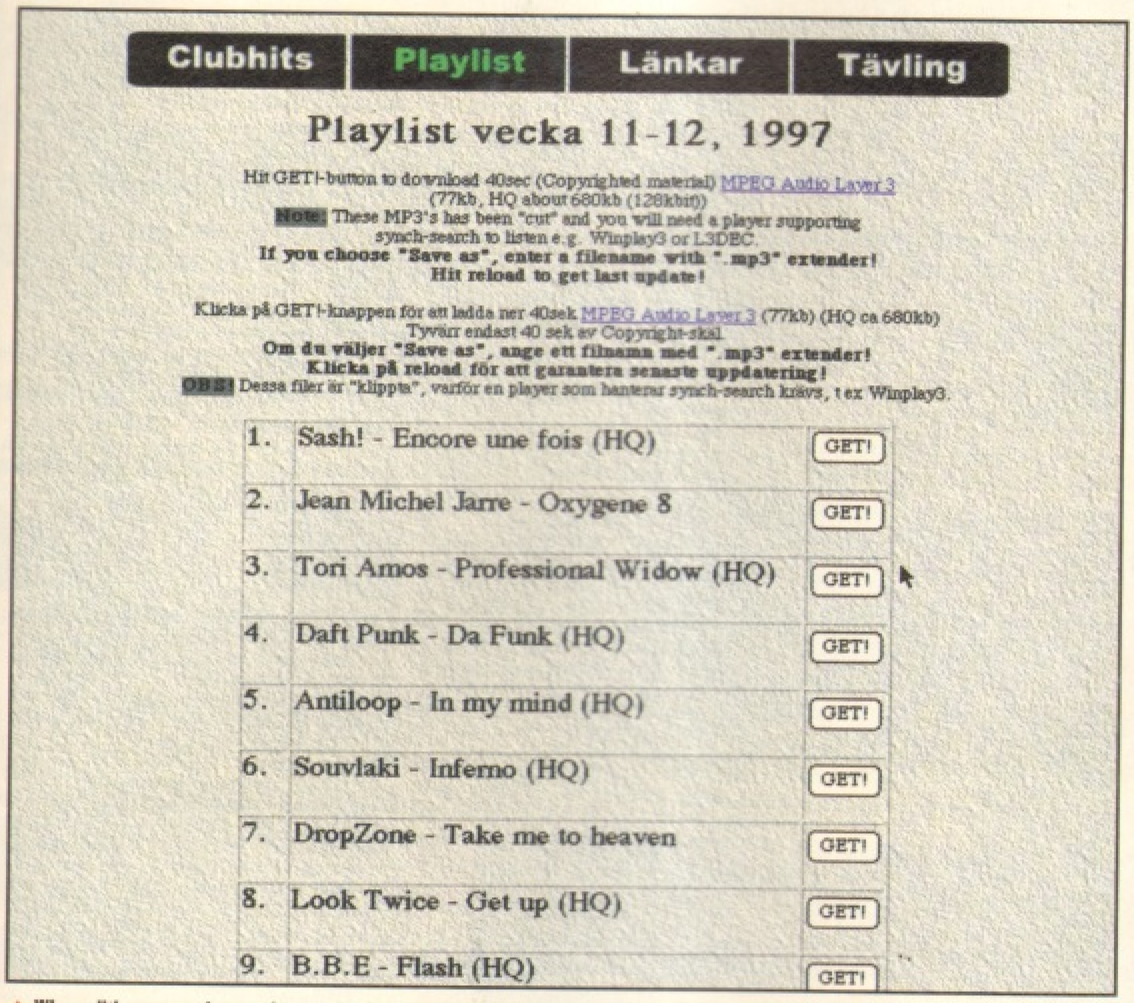
Amiga software update

As this feature was being written, Amiga software got better every day. No doubt by the time you are reading this it will be better still. We've put the current software on the CD-ROM inside the Magazine drawer so you can try it out for yourself. There are two packages, both of which are ports from Unix source code. The first program, 'AMP', is a decoder only, but definitely the fastest. On a 68060 machine it manages to decode in real-time though it has no audio playing yet, so it must be spooled to hard drive and played from there.

AMP needs the ixemul.library in libs:. You can find this in the libs: directory on CUCD10. You will need to access AMP from the Shell, increasing the stack to 50,000 bytes first by typing 'Stack 50000'. In the Bin directory of AMP, you will find several versions for different 680x0 CPUs and FPUs. Rename/copy the right one to your path, IE c:. To run AMP, type 'amp -c -w file.mp3 output.wav'. It will chug away for some time depending on the size of the MP3 file you have obtained, and create a very large WAV file on your hard drive. The second package, called 'MP3', also has an encoder. A realtime MP3 player and MP3 spooler is being developed for the Amiga at the moment. This will require plenty of CPU time, so it may have only partial functionality even on 68060 Amigas.



▲ Disclaimers such as this are a common sight on MPEG audio pirate web sites. While it might ease the mind of the webmaster responsible for distributing copyrighted music, it won't hold up in court!


Clubhits | Playlist | Länkar | Tävling

Playlist vecka 11-12, 1997

Hit GET!-button to download 40sec (Copyrighted material) MPEG Audio Layer 3 (77kb, HQ about 680kb (128kbit))
Note: These MP3's has been "cut" and you will need a player supporting synch-search to listen e.g. Winplay3 or L3DEC.
If you choose "Save as", enter a filename with ".mp3" extender!
Hit reload to get last update!

Klicka på GET!-knappen för att ladda ner 40sek MPEG Audio Layer 3 (77kb) (HQ ca 680kb)
Tyvärr endast 40 sek av Copyright-skäl.
Om du väljer "Save as", ange ett filnamn med ".mp3" extender!
Klicka på reload för att garantera senaste uppdatering!
OBS! Dessa filer är "klippta", varför en player som hanterar synch-search krävs, t ex Winplay3.

1.	Sash! - Encore une fois (HQ)	GET!
2.	Jean Michel Jarre - Oxygene 8	GET!
3.	Tori Amos - Professional Widow (HQ)	GET!
4.	Daft Punk - Da Funk (HQ)	GET!
5.	Antiloop - In my mind (HQ)	GET!
6.	Souvlaki - Inferno (HQ)	GET!
7.	DropZone - Take me to heaven	GET!
8.	Look Twice - Get up (HQ)	GET!
9.	B.B.E - Flash (HQ)	GET!

▲ Why audition a record over a low grade phone line, when you can try it out on your home hi-fi with nothing more tricky than a click to download an MPEG preview? Could this be the beginnings of a revolution in music distribution?

tailor-made CD (a personally selected compilation for example) or just Emailed direct, for playback from the customer's hard drive or cutting to CD there.

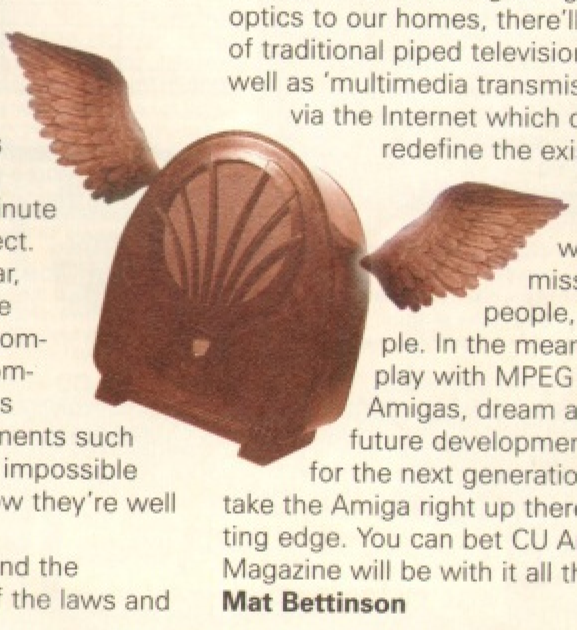
The next extension will be agencies selling CDs mailed to you containing the tracks of your choice which the agency buys per shot from the record companies. Neat.

For me though, the real exciting stuff will be amateur music publishing. Anyone could set up shop on the Net with their own music for sale and proceed to sell it without any of the stigma surrounding record companies, contracts and all that jazz. When you buy their music in this way, the artists gets all of the money and it should be cheaper too.

Whatever happens, it's going to be interesting how the established music business reacts. Without a doubt, there are going to be another wave of landmark legal cases too, as the definitions of broadcast laws and copyrights are taken apart and argued back and forth by some of the best lawyers in the world. When the kind of cash the pop music business deals in comes under threat, you can bank on big noises being made.

Dial 0898 MPEG

Some forward thinking commercial music organisations have already got a handle on MPEG audio and are using it to their advantage. It's been possible to dial up toll phone numbers to listen to records before deciding to buy, but this is obviously not an ideal system. How are you supposed to judge the merits of a track made to be played on a massive club system by listening to it through a crackly phone line? Now you can fire up your web browser and download the latest offerings from music charts via MPEG, and listen in to a high quality preview of a minute or two of any track you select.



As is now becoming clear, there's so much more to the Internet than the previous common perception of a few computer hackers swopping files around the World. Developments such as this would have seemed impossible just a few years ago, but now they're well and truly science fact.

Once again technology and the Internet finds itself ahead of the laws and conventional viewpoints held by governing bodies. They'll realise eventually of course. In a future digital age with fibre optics to our homes, there'll be a choice of traditional piped television and radio as well as 'multimedia transmission stations' via the Internet which could totally redefine the existing concepts of TV and radio. Two-way mass transmissions for the people, from the people. In the meantime we can play with MPEG audio on our Amigas, dream about near-future developments and wait for the next generation software to take the Amiga right up there on the cutting edge. You can bet CU Amiga Magazine will be with it all the way. ■

Mat Bettinson

MPEG explained

MPEG audio comes in three different flavours, known as 'layers', increasing in complexity. Layer 1 is used on the Philips DCC digital tape system at 384 kbps, still a significantly high data rate at 1:4 compression (4 times smaller). Layer 2 gives about 1:6 to 1:8 compression with lower quality audio while the mighty Layer 3 achieves 1:10 to 1:12 with virtually no loss of quality.

How it does this is highly technical but it involves art of 'psycho acoustics'. The human ear is an amazing but not perfect apparition. It can pick out individual sounds and frequencies from a cacophony of noise but only under certain conditions. It's those conditions that MPEG audio exploits by recording only the sounds which we can hear at any instant. We may be able to tell a sound apart over time but in a fraction of an instant, the ear won't be able to resolve the sound, so MPEG discards this information.

Finally the waveform is sent as a description of the frequencies of the sound, not as the recorded sounds themselves. The player program takes the list of frequencies and puts the waveform back together again. MPEG audio is still fully digital audio with no introduced noise such as tape hiss; when the data rates get low enough for the difference to be audible, it still sounds 'comfortable' until the rate is dropped considerably. We did some comprehensive tests on several types of music and the results indicated that sometimes we could tell the difference between the original and MPEG 3 at 112000 bps but never at 128000 bps.

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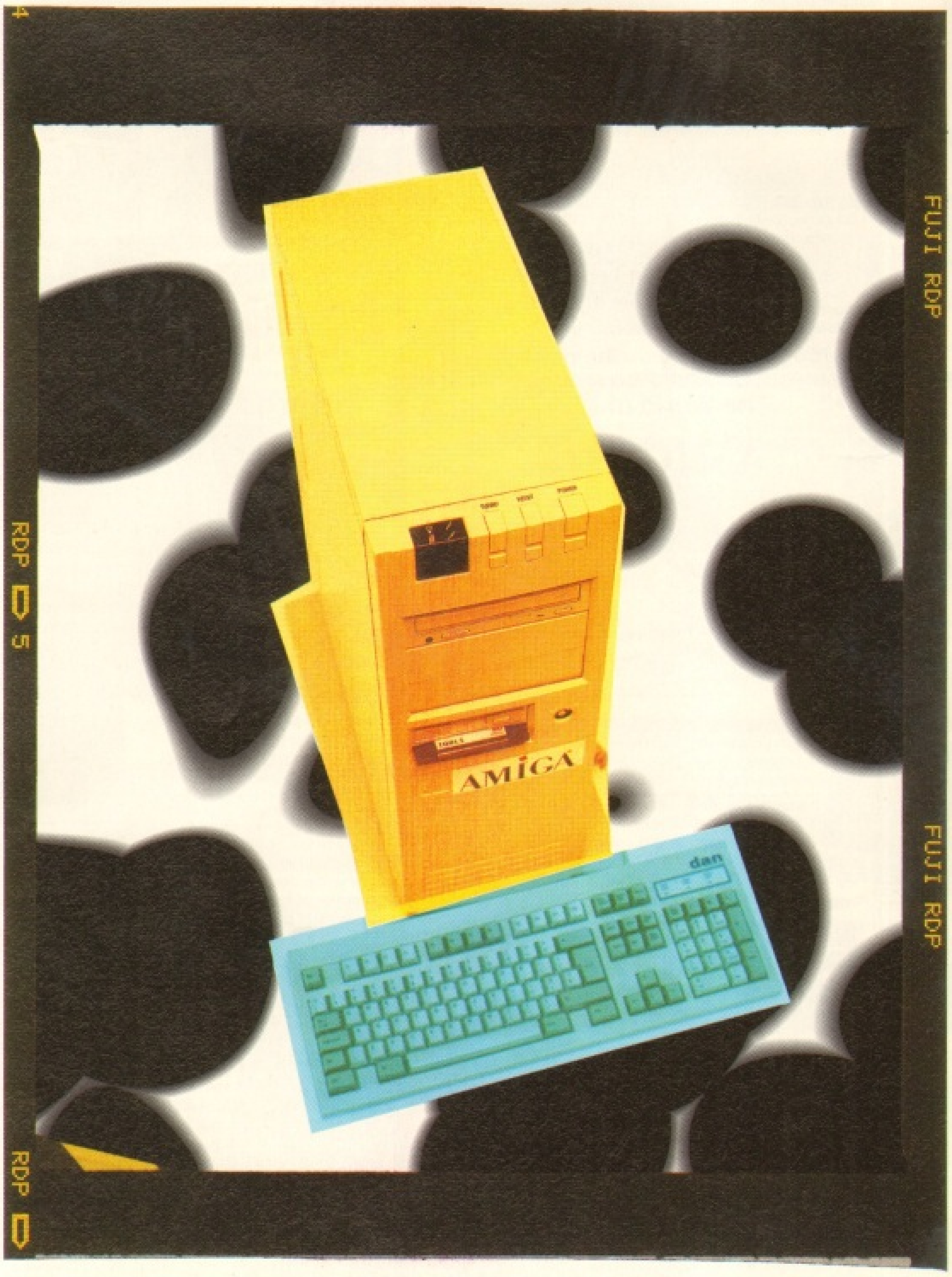
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Build Your Own Tower

PART 2

Make the big break: crack open the valuable innards of your A1200 and relocate them to spacious PC tower case.



There's a reason that nobody makes console style computers any more; the public now takes computing seriously enough to dedicate a desk and a monitor to the task. The age old Commodore formula of a computer that sits in front of the family TV is now more of a hindrance than a help.

There are other reasons too like the meaty power supplies in PC cases, detachable keyboards, drive bays and so on. If you can handle a screwdriver and are determined to give your Amiga a better home, read on as we show you how.

Improvisation

Firstly the standard warnings; this task requires money, hard work and some improvisation to make the best of it. Please consider what's involved before undertaking the task.

It is quite easy to damage your Amiga and we can't be held responsible although we'll try to point out the hazards. This isn't a step-by-step tutorial as the sheer variety of Amiga set-ups, PC cases and readers capabilities makes that impossible.

However, if you follow our tips and guidelines here and put the effort in, you will be rewarded with an extremely smart Amiga, the envy of any Amiga user not brave enough to go the way of the Tower.

We're going to need a PC full tower case and not mini tower. The A1200 motherboard is annoyingly tall and some cases will be unsuitable. Some may require metalwork while others fit well. Take your Amiga motherboard to a computer supplier and see for yourself how it will fit before purchasing. Things to look out for are power supplies set too low, annoying braces in the way of the motherboard and overall good quality design and build.

Prices vary from supplier to supplier but we don't recommend buying a case blind via mail order.

Disassembly of the A1200 isn't too difficult thankfully. Undo all of screws on the bottom. The top of the case will lift off. There's a ribbon to the motherboard from the keyboard, be sure to pop up a sleeve around this before pulling out the ribbon or it will be damaged.

Lone motherboard

Lift out the keyboard and you'll see the motherboard encased in the RF shield. Remove the floppy drive and set it aside for later. There are screws around the RF shield which hold the motherboard to the bottom case, remove these. The entire motherboard should now lift up, forwards and away from the bottom plastic case.

Depending on your keyboard solution, you may need to remove the RF shield. Doing so may make getting access to the plugs and sockets a little easier too. There's a number of metal lugs from the bottom half of the RF shield which poke

WARNING

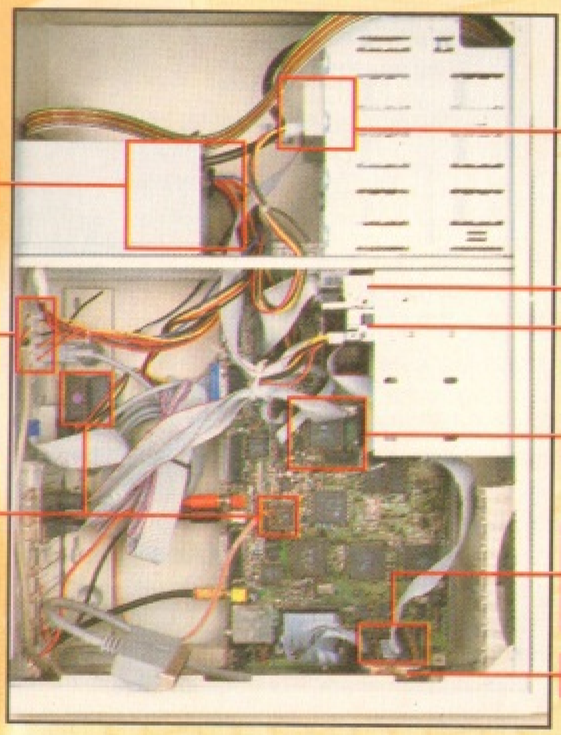
MAINS VOLTAGES CAN KILL.

This project involves electrical connections and should not be attempted unless you understand electrical safety procedures. We can take no responsibility if you blow up yourself or your computer. Watch for this icon – it indicates that special care must be taken.

LED us to the light

The A1200's LEDs need not be a casualty of the move to the tower. We pondered the subject for awhile and realised the solution lies on a tiny PCB attached to the top half of the A1200's case, the PCB that the LEDs are mounted on. Unscrew this and you'll have three LEDs on a tiny PCB with some wires to a plug. The PCB has the current limiting resistors for the LEDs, so the solution is to simply remove the LEDs. Find the cables to the LEDs in the PC case and cut off the plugs. You need to wire the applicable LEDs up to the small PCB. Each of the big LEDs that you removed from the PCB had four legs. You need to place the wires in the outer two holes. You will not know which way around they go so plug the PCB's plug into the A1200 motherboard, fire up the power and touch each PC LED's wires to the green power LED's pads briefly. The PC case LED will light up only one way. When it does, take a note of that direction and when you've tested the power, hard drive and floppy LEDs of the PC case, you can power down and solder the wires into the holes on the PCB. Now just attach the PCB to somewhere in the case, placing some insulation underneath, and voila, we have lights!

The cutaway guide to the A1200T



through holes in the top shield. These need to be bent upwards with a flat blade screwdriver so that the top RF shield can be lifted off. Don't take the bottom RF shield off, it's difficult to do and it insulates the bottom of the board anyway.

The hard part of physically mounting the board inside a tower case needs to be performed now. There are many ways of doing this, here are some suggestions. Decide where the motherboard is going. Mark the three forward mounting holes on the motherboard with a pencil on the case back. Drill through the marks with a drill bit slightly larger than some nuts and bolts. Bolt the motherboard in to those holes. Use some additional mounting towards the rear of the motherboard to fix it firmly. Cable ties or glue could do the job. Make sure you take into account space needed by an accelerator plugged into the trapdoor socket.

Five minute mount

Another way is to get some contact glue and simply glue the RF shield to the back of the case. It's ugly and inelegant but it works and takes five minutes for a perfect mount. Naturally be very sure where you want to mount the motherboard before doing this. Other solutions could be using wood inside the case. With a drill bit a tad smaller than some self tapping screws, wooden braces can be stuck to the PC case, drilled through and screwed in place from the outside of the case. Same again from the otherside for the motherboard. Exactly what you do is up to you, you might like to ask any resident DIY experts how they would do it.

Now providing we have our motherboard fixed into a tower case, there are more problems to overcome. The first one is power, see the power supply page later. The floppy drive is easy. Mount it in one of the drive bays. You'll need to remove the mounting arm on one side. A tip here is to glue on the floppy drive eject button, it will fall off otherwise.

You'll also need a longer floppy cable to go from the floppy drive to the motherboard. Maplins can help you here. Don't plug the drive power into the motherboard, snap on one of the floppy power cables from the power supply inside the case.

Some of the ports might be a pain being inside the case. A particular example is mouse and joystick ports. A solution here is to obtain extension cables like we did from Maplins. One end has thumb screws and coupled with two Ext jack posts, the plug can be fixed to the rear of the case as useful back panel mounted sockets. If you need normal jack posts, don't forget you can cannibalise them from the sockets on the rear of the motherboard.

Serial and parallel cables tend to be expensive for extensions. See if your cables fit beforehand. If not, try making your own with ribbon cables and IDC headers. Maplins have the needed parts.

Only after you have the motherboard mounted, power supply wired up, LEDs connected and such forth, should you add drives. Before you come to this, tie back loose cables into bundles with either cable ties or spiral cable wrap. PC cases may either use drive brackets so that drives can be pulled out and inserted or fixed bays which the drives are directly screwed into.

If using several IDE devices, Eyetech's four way splitter is a good bet and it should be mounted close by the motherboard with a pair of standard IDE cables leading from the splitter to the master and slavedrives on each of the two IDE channels.

Maplin to the rescue

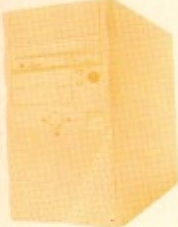
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Maplin also have a good range of ribbon cable and IDC headers
Maplin: 01702-554000

PCMCIA right angle adapter	£24.95

Blittersoft: 01908-261466

Continued overleaf ▶▶▶



The inside story

There are many add-on boards that connect to the Amiga motherboard. If you want to do the full tower conversion, then a keyboard adaptor and at least one of these others will be necessary. We used the Atéo adapter described below. The other devices are options which can add to the power and flexibility of your A1200T.



1: PortPlus

One of the things which back holds the Amiga when it comes to connecting yourself up to the modern world are the I/O ports. They were specified a decade and a half ago, and are now showing their age. If you wondered why no-one sells the Zip drive parallel port version for the Amiga, it is because the Amiga parallel port is too slow. Comms, audio and video sampling, networking ... the need for fast I/O ports is growing all the time, and PortPlus gives them to you. The innovative A1200 clock interface-connected device provides 2 x 460k baud serial ports and a 500k/sec parallel port. These ports can be connected directly to the back of your tower case for ultra simple I/O connections.

Review: Next Month
Price £99.95. Contact Eyetech on 01642 713185

2: Eyetech buffered IDE splitter

This neat little board allows the use of four IDE devices. It splits your IDE line into two chains, each of which can have one master and one slave device. You will need software such as IDE-fix or the full version of ASIMCDFS to use it. Having four IDE lines makes it possible to really fill those drive bays – two hard drives, a CD-ROM and an IDE ZIP drive, anyone?

This Eyetech unit is buffered, which means that the line is electrically isolated. The dangers of using unbuffered interfaces are undoubtedly exaggerated, but equally buffered interfaces are undoubtedly more reliable, remove problems over IDE cable length and are a reassuring option for four device connections. Atéo produce an unbuffered splitter, the IDE-MUX, which is cheaper at £29 (£23 for the 40pin A4000 only version), and AlfaData's Alfa Quatro, available from Golden Image, costs £59 but comes with the registered IDEfix software.

Review: Next month.
Price: £39.95.
Contact Eyetech on 01642 713185

3: Dataflyer

The Dataflyer is an internal SCSI controller. It slots into the IDE interface on the motherboard, and has a pass-through connector to allow IDE devices to be connected as normal. This is a cheap and effective way of getting a SCSI interface, but remember that IDE devices are treated as SCSI devices, so any SCSI device you connect MUST have a different unit ID to your IDE devices. We haven't tried using an IDE splitter and a dataflyer together yet, but there is no reason why there should be a problem.

The A4000 version could be an ideal tower solution as it has a 50-way header for internal SCSI devices. It is A4000 only because it plugs into a 40 pin not a 44 pin IDE connector, but this is no problem for the tower converter.

Unfortunately, UK distributers Siren don't do the A4000 version. You could hassle them into getting you one or buy one from the manufacturers.

Price: £79.99. Contact Siren on 0161 796 5279

4: Catweasel

Some of you may have wondered why we haven't told you how to connect PC floppy drives to your Amiga – after all the internal floppy doesn't have a face plate and looks rather ugly in a tower case. The problem is that the Amiga high density floppy drives are non-standard devices, they spin at half speed. Amiga HD units either have a complex buffer a la Power Computing XL drives, or are rare half-speed HD mechanisms. Much better is the Catweasel from Blittersoft. It plugs into the IDE port with a pass-through socket, and provides a standard 34 pin floppy connector. Off the shelf full speed PC 1.44Mb floppies can then be inserted in your tower and plugged straight in. The cost of a Catweasle and a PC HD floppy drive is about the same as an Amiga HD floppy and a lot faster, plus it slots beautifully into the tower case.

Review: Next month
Price: £59.95. Contact Blittersoft on 01908 261466

5: Atéo Keyboard Interface.

This little board has a PLCC socket which fits over the keyboard controller chip and takes power from a floppy power connector; your tower should have a spare. It can be mounted inside the tower case with sticky pads, aligned with the round keyboard socket hole punched into the back of the case. It will then take any PC AT style keyboard – very good ones can be bought for little more than a tenner. The Atéo interface scores highly on convenience and ease of use.

Review January '97 page 61.
Price £44. Contact: Ateo Concepts on 01705 790211.

SCSI towers

So far we have dealt with IDE solutions, because they are cheap and easy. But what if you want your tower – either a full conversion or a mini tower as described last month – to use SCSI devices? You'll be glad to know that it is perfectly possible, although a little expensive!

There are three main paths to SCSI on the A1200: the Squirrel, the Dataflyer and SCSI boards on accelerators. Using internal SCSI devices with any of these is tricky due to connection difficulties. Internal SCSI devices use 50 pin IDE connectors, whereas external devices use one of a variety of different connectors.

If you have a Squirrel, there will be a 50 way centronics cable on the end. You mayhave a CD-ROM in an external case. These are an internal SCSI drive mounted in a box with a small power supply and a converter cable. You can open up the case, remove the drive and fit it in the tower, powering it as you would an IDE drive, and use the converter connectors from the external case to link the drive to your cable. The pass through connector can be mounted on the back of your tower.

Because there is such a wide variety of SCSI connectors, you'll have to figure out what your current hardware uses, and get a cable from your local computer dealer. Such connectors tend to cost a fair bit. If you are planning a full conversion with the Zorro slots, a Zorro SCSI controller board is definitely preferable. See also the comments on the Dataflyer above.

Continued on page 35 ▶▶▶

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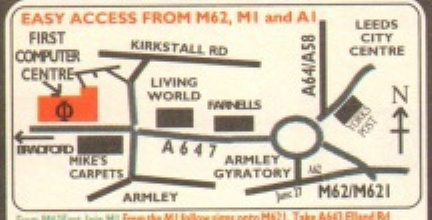
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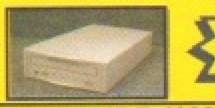
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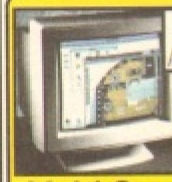
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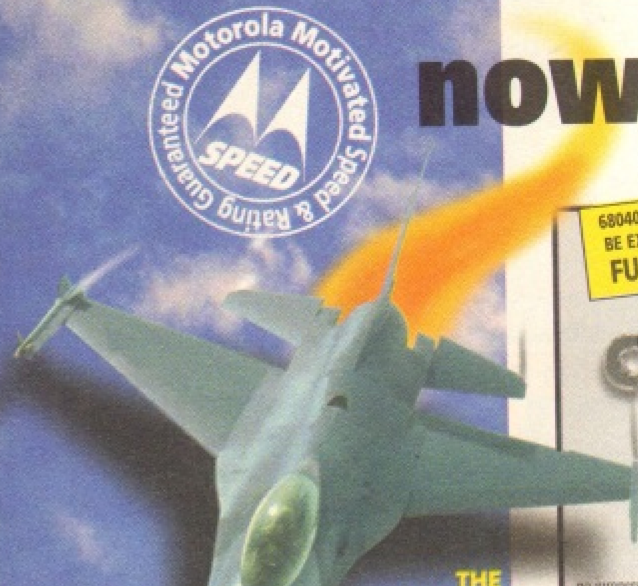


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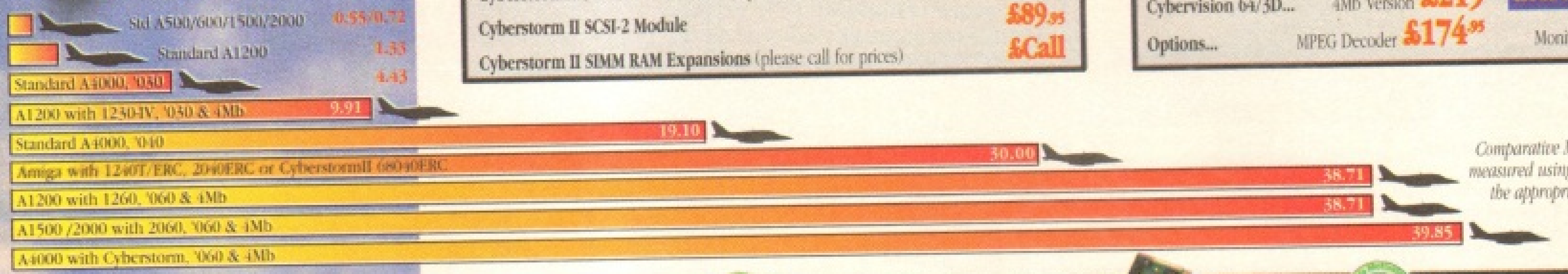
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STANDARD EXPRESS

Power connector

Your standard PC case usually comes with a good 200 Watt power supply built in; whereas the Amiga power supply is barely adequate. The case power supply will gladly power all of the internal drives, the A1200 motherboard plus an accelerator too. Everything can also be switched on from one power switch. You don't even need a tower to do this but just a standard PC power supply and your A1200 could still be in it's own case. Either way, here follows instructions on building a super Amiga power supply.

The problem we have is connecting the motherboard to the power supply. For this we actually need to cut off the non-standard Commodore power connector from the existing power supply. This procedure is only for people with a little understanding of electrics and requires the use of a multimeter. If you don't feel happy with the procedure detailed here, continue to use your existing power supply, running the power cable through the back of the Tower case and into the motherboard.

First we need to connect up the case power supply to an electrical terminal block which can be bought at Tandy. There's a lot of wires hanging out of the PC case but two bundles will be attached to especially large connectors with six wires each. One of these will match up to the diagram here. Cut this connector off, skin the wires and twist the exposed copper with clean fingers so the strands don't come loose. If you have a soldering iron, the best thing to do is to 'tin' the exposed copper; this is performed by applying a soldering iron and solder at the same time until the wires are lightly coated with solder making them solid.

Insert these wires into the left side of the terminal block and tighten each screw on that side so that the wires are held firm. Note that one wire is connected to the right hand side so it's wired up to one of the black ground wires. Now you should have the correct power lines attached as in our diagram. Check your work by placing your multimeter prongs from the black wires to each of the other coloured wires **(Figure 2)**. Touch the screws in the terminal blocks with the prongs and your meter should show the right voltages with the power supply on.

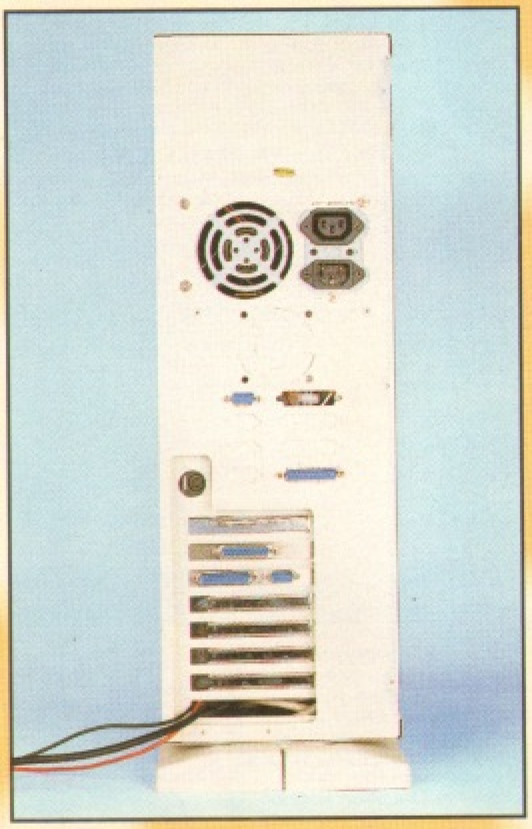
If all is well, unplug the power supply and cut your Amiga power supply cable a good couple of feet from the plug. Bare back the outer plastic sheath of the cable at the cut end. Lightly score around the cable with a knife about two inches from the end. You will be able to pull off the sheath without too much difficulty. Do the same with all of the four wires exposed, though these are lighter so the cutting edge of a pair of pliers can skin off the last centimetre.

Skin and tin (if possible) the four wires in plastic. You need to be able to put a nut and bolt through the terminal block and find any suitable hole (or even drill one) in the tower case to fix it down. The uncoated wire in the Amiga power lead should be coiled around the bolt so it's electrically connected to the chassis.

The tricky bit to this is that the Amiga power leads have different colours depending on who made the power supply at the time. Therefore, look to the diagram of the power plug here and check with your multimeter on 'continuity' setting which wire goes to which pin. Then look up the voltage and screw that wire into the appropriate terminal block connector.

When you're done you should have correct power going to the power lead. Plug in and switch on the PC case power supply and very carefully measure the voltages on each pin of the power plug. Just press the black multimeter probe to the square sheath and the red probe gently onto each pin in turn to ensure the voltage is the same as in **Figure 3**. If not, you'll need to change the wires on the terminal block. Be careful not to short out the pins with the multimeter probe or zap!

Our last tip is that you obtain a multi-way power board with a female power connector. This will fit into the back of the PC power supply so that one switch will turn on your entire set-up. Enjoy!



Here's the rear of our tower, showing pass through power supply.

Figure 2

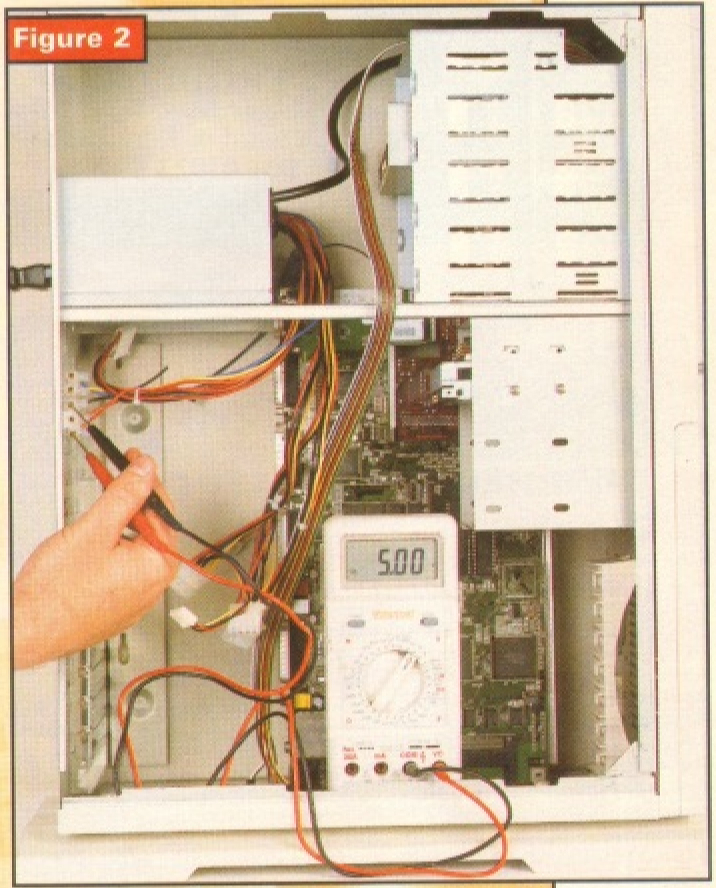
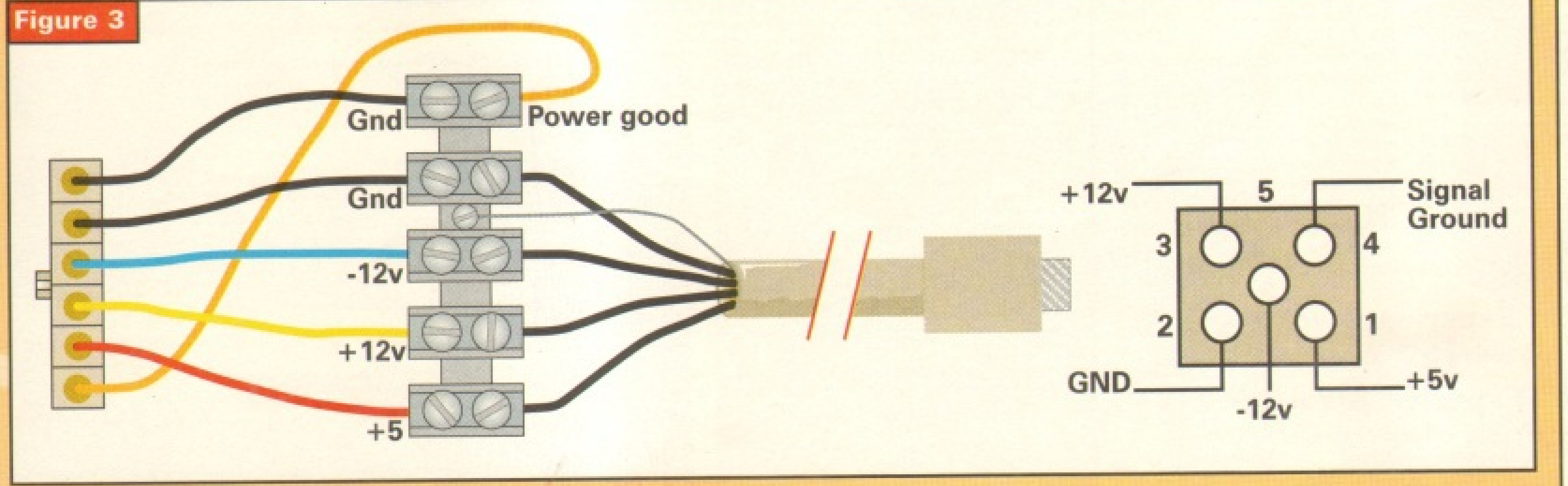


Figure 3



Above: here we are with our multimeter, checking the voltages on the terminal block before wiring up the Amiga power lead.

And left: the diagram of how to wire up the PC power supply to the Amiga power lead. A multimeter must be used to check which wires go to which pins on the Amiga lead.

Screen Scene



Out of the blue this month, The Big Red Adventure popped through our letter box, a real treat for starved adventure game fans. Let's hope we see more of this in future!



Big Red Adventure 40

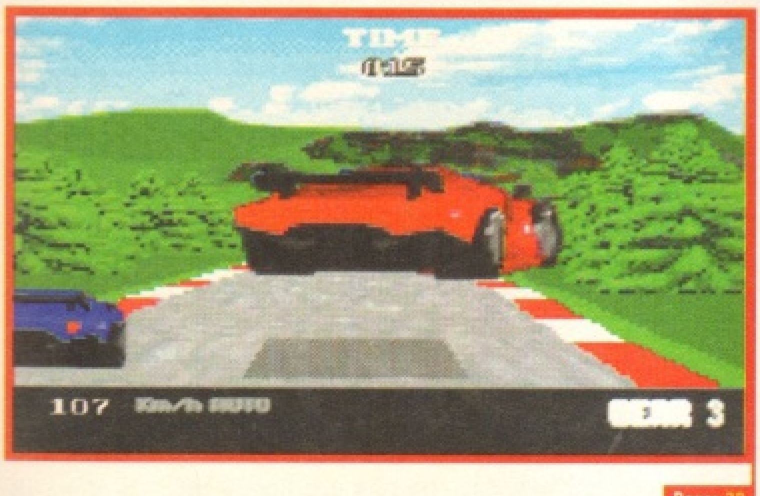




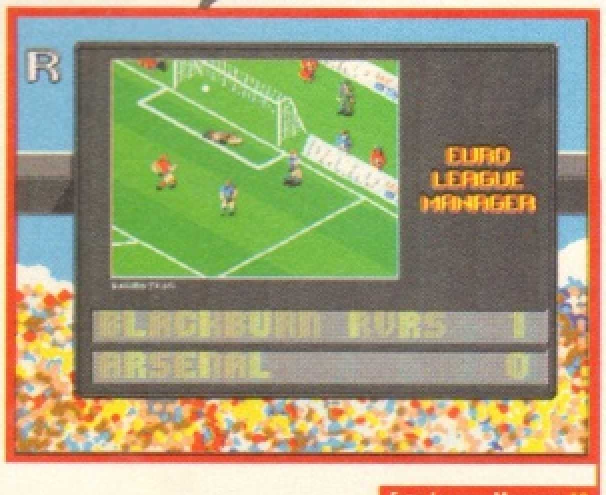
Budget Games 44



Tips Central 48



Racer 38



Euro League Manager 42

Previews

Racer

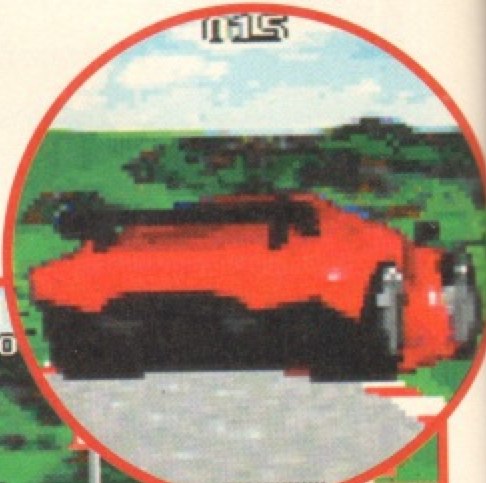
■ Due for release: June ■ Developer: D'Heeger Sebastien

Since XTreme Racing hit our Amigas last year, there's been little to entertain the racing enthusiasts among us. However, it seems XTR has inspired some of the Amiga's best programmers to get back on the case and knock out a decent race 'em up. This month sees the emergence of three!



Racer is in its early stages of development, as you can probably tell from the graphics. These shots were taken from the 2x2 pixel mode, which looks a bit rough but at least moves at a reasonable speed. The more attractive 1x1 mode is, at the moment at least, far too slow on even a 68040-based Amiga to be playable. However, the graphics may well be speeded up as development continues, so let's not condemn it for that just yet. In fact the programmer plans to include a number of different versions of the game, each optimised for a different 680x0 CPU.





Racer promises six courses in various conditions such as snow, rain, dry and so on. As is customary, the view is from behind your own car, so as you might expect, we're talking action rather than simulation with this one.

Until we get a more advanced version it's hard to tell whether

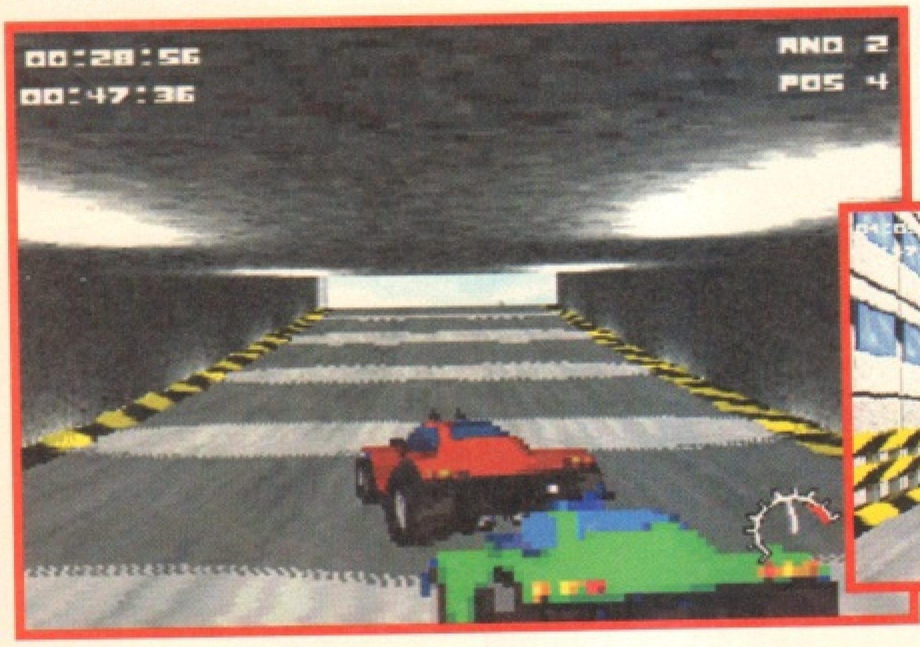
Flying High

■ Due for release: June ■ Developer: APC&TCP



Next up on the racing menu ladies and gentlemen we have Flying High. This looks like it could be a bit of a corker actually. Once again, it can be run at different resolutions to keep the speed up on lower powered Amigas but make the most of faster machines. It runs a lot faster and smoother than Racer, and is quite playable even in its quarter-screen display mode.

This early demo is set in a city, complete with glass-fronted sky scrapers and even tunnels. However, while it looks very good and runs fast, the controls will need a lot of work though before Flying High is finally released. At the moment, anything more than a flick of the joystick sends the car flying off into a spin or crashing into the barriers.





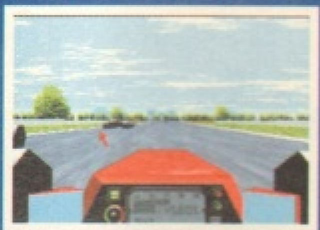
However, it's early days, and this is meant more as taster of the game engine. No doubt the controls and gameplay will be tweaked.

If asked to pick a front runner between this and Racer, Flying High would be the favourite to come through in the final furlong, although it's unfair to comment really until both games are finished.



AF1 – Alien Formula One

Carrying on in the racing theme, we've got a really good racing demo for you on this month's CD. Our staff writer Andrew Korn is simply raving about it. AF1 is in its very embryonic stages yet as the demo on the CD shows, is very impressive. It features texture mapping, light sourcing and clever copperlist graphics with no blocky pixels. It's surprisingly quick too. So far, it can only be controlled by mouse and reversing is very difficult. However, it's well worth a look so check it out.





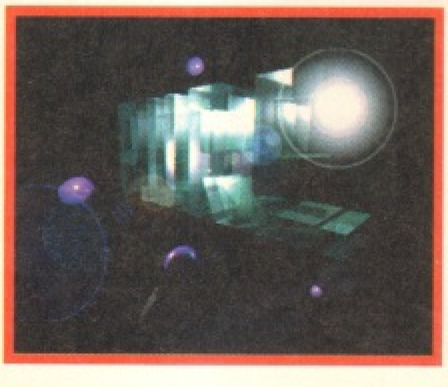
the developers have bitten off more than they can chew, or if its a classic in the making. We'll keep you posted either way.

Racer will be available as mail order and will cost around $25. For more details contact D'Heeger Sebastien, 137 Rue du General, Catroux, 59495 LEFFRINCKOUCHE, France.



Flying High is the product of APC&TCP, the other half of the Islona team which produced Marbelous, Kargon (this month's cover disk demo) and Testament. So far though, Flying High will be available only from APC&TCP in Germany.

For more information you can contact them on tel: 0049 864 899953.



Big Red Adventure

AMIGA SUPERSTAR

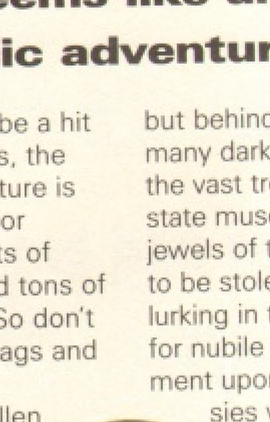
■ **Price: £TBA** ■ **Publisher: Core Design/Dynabyte Supplier Power Computing © 01234 851500**



After what seems like an eternity a decent graphic adventure is here.

After proving to be a hit with PC owners, the Big Red Adventure is now available for Amiga players. There's lots of colour, bags of music, and tons of puzzles for you to solve. So don't just sit there, pack your bags and head East young man.

The iron-curtain has fallen and the Russian Bear is now to be found wearing designer jeans and guzzling Coke. Burger bars are sprouting in Red Square and decadent Western magazines can be bought at street kiosks. Does this mean that the former mysterious Empire is now as boring as Wigan? Don't be silly! The door to the East may be open but behind that door there are still many dark corners to explore. In the vast treasure house of the state museum lies the crown jewels of the old Tsar just begging to be stolen. Mad professors are lurking in their laboratories waiting for nubile western flesh to experiment upon and mysterious gypsies who deal in witchcraft are to be discovered hiding in the dark pine forests.



Pack of 3

The plot is a number of loosely connected episodes in which you alternatively take control over one of three comic misfits who are out on a spree looking for trouble and riches. There are three main characters in the game: Doug the Computer Nerd, Dino the Italian and Donna Fatale from the Bolshi Ballet (she of the flashing eyes and curvy shape!). The story is as big as the Russian Steppes and it snakes its way from Moscow, overland on the Orient Express, to a watery climax in Venice. The cartoon graphics and snappy one-liner dialogue gives the game a look and feel similar to that of the Leisure Suit Larry series but thankfully without the smutty bits.





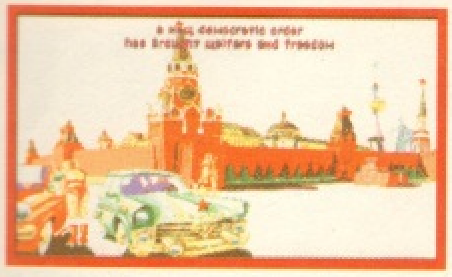
In the initial stages you will only have one character to control but in the later sections of the game the three come together and you must select which of them to use to solve any particular puzzle. As you would imagine, once your options are increased, so are your problems. The game is also split up into a number of different chapters featuring different characters as the star. Not only does this give a different feel to each of the sections but it allows you the chance to try and solve a separate section if you are bogged down in one of the others.

The first episode requires you to guide Doug the computer nerd in his quest to steal the Tsar's crown. To complete this quest you'll first have to get yourself onto a Russian TV quiz show, then take part in a Mission Impossible style jewel heist. The second episode features Dino the Italian - who makes a plank of wood seem smart. You will have to guide Dino through an adventurous circus background and then onto the Orient Express bound for Venice. In the third episode you'll be guiding Donna Fatale around the Orient Express, where death and mysterious strangers lurk in the sleeping compartments. In the final episode you'll encounter the evil Doctor Virago who is looking for a young virgin (so what makes him so special?). It doesn't take long before Donna is bundled away to the villain's lair and it's left to you to rescue her from a fate worse than death. (Never did understand what that could possibly be.)

Larger than life

The problem with old-style adventure games was that once you'd finished them there was nothing else to do with the software. Luckily modern storage methods now mean that larger games with alternative solutions can now be produced, and this game is no exception. There is more than one way to skin a bear, and with this game you can arrive at a solution by a variety of routes. Happily this means that once you have solved the game you can have another go and try and find the alternative solutions that are also available.

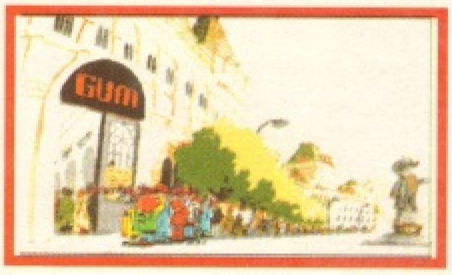
Adventure games rise or fall according to the difficulty level set by the game designers. Too hard and frustration and disillusionment sets in, too easy and you'll feel cheated. The difficulty

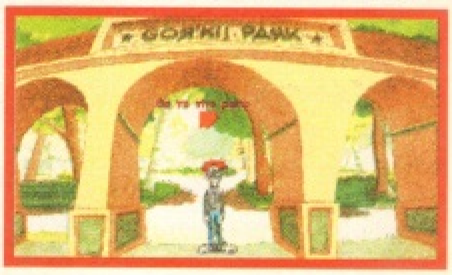




▲ Russian cuisine has come a long way from cabbage soup, now you can eat out in decadent western style. Anyone fancy a vodkacola and a big grizzly burger?







of the puzzles within Big Red are probably set about right. There are lots of objects to find and use, and although they are sometimes hidden away in corners, the fact that they are highlighted as the mouse pointer travels over them makes them not too difficult to find.

One aspect which can cause confusion is that if you don't know about something, you can't ask a computer controlled character about it. You can speak with someone a million times and they won't offer to sell you the gold-plated 'wotsit' until you are actually aware that the 'wotsit' exists. This means that you will need to revisit locations and speak with the same computer-controlled characters many times as you progress through the plot. To solve most problems you will have to go through the usual routine, which is the bane of all adventurer's life, of sticking unlikely objects into unlikely places.

Places to go ...

The full-screen graphics which make up the 100+ locations are drawn in a primary colour, cartoon style format. To stay true to the original PC version the screens have been ported directly. To display them at their original resolution they are all interlaced so they look a little flickery until you get used to them. No doubt thanks to the high storage capacity of the CD, the game is also full of music and sound effects for nearly every location. However, if the puzzles confuse you as much as they are supposed to, you'll soon be reaching for the volume control, to give your brain a chance to think.

Point 'n' click

The game uses a simple point and click interface. Clicking the 'right' mouse button brings up the inventory window which allows you to select or pick up objects and use them on active parts of the main screen. By 'using' a selected object on your own character you will then be able to reselect the inventory using a 'plus' symbol which will allow you to use two objects together from the inventory. By adopting this method of hiding all other windows during normal play, the whole screen can be used to display the current location. There is no need to do any typing, just move the mouse around the screen and any object which has a use will be high-lighted with a text title.



Conclusions

A new, large and colourful adventure for the Amiga has got to be a bonus, so it would be churlish to find a fault with any offering. However I do recall a game called Nippon Safes which was around a few years ago to which the game bears a remarkable resemblance. I have a sneaking suspicion that this game has either been written using the same game engine, or it's been created by the same team of game designers. Nippon Safes never made it big as it was so obviously a continental import, having a different feel to home grown products. Many continental games do succeed in Britain, but like garlic it can be an acquired taste. The game is big and it will take you a long time to complete it. The puzzles are not going to drive you mad, but the answers won't come easy.

Let's face it, it really must be time you decided that you are never going to finish Monkey Island after all, so why not give yourself a break and buy a new game to drive yourself nuts with. And if you are going to buy a new adventure, then the Big Red is one which won't disappoint you. ■

Andy Mitchell



▲ There are interesting people to meet in the hotel foyer, and the porter can be persuaded to supply you with some useful objects if you ask him nicely.

BIG RED ADVENTURE

A500 · A500+ · A600 · A1200 · A1500 · A2000 · A3000 · A4000

■ AGA Amiga with CD drive

graphics	85%
sound	88%
lastability	89%
playability	89%

OVERALL
A must for all puzzle-hungry adventurers. **90%**

Euro League Manager

■ **Price: £19.99** ■ **Publisher: Guildhall Leisure Services ✆ 01302 890000**

Yet another football management game arrives before Championship Management 2. When oh when will the wait be over?

Footy management games have certainly proved popular over the years and companies such as Gremlin must have made a right old mint out of them (as we celebrate Premier Manager 17) but what is there left to offer the genre? Well, if we look at Euro League Manager from Guildhall Leisure it becomes totally apparent that there's NOTHING left to offer the genre. Instead we find that simply churning out the same old formula is the best policy and to add insult to injury, making up team rosters and individual player details is a cost-efficient and accuracy-trouble-free solution.



Nasty balls

Ah, but I'm being far too vicious. Using fictional players is, er... great. No, really. It means there's no chance of the programmer's opinion of individuals clashing with yours and you don't have freakish instances where the likes of Man Utd's Andy Cole gets accidentally classed above players such as Giggs. But I digress... Sadly, using fictional and miss-matched players also takes half the point out of such games – that point being when you finally get to take Cole out of the team and put a proper player in his place.

You see that's why football management games succeed. You watch the game on the Saturday, 'enjoy' seeing your team lose, and then spout on about how you "would have brought so-and-so off at half time and put so-and-so on instead". Load up a decent management game and you can ACTUALLY try out your dream team. Load up a half-arsed version and you won't even recognise the names. Taking Arsenal to the top of the league is great fun for sure, but with class front men such as Stavros O'Goalish and Stevie Shooter scoring the all-important last minute beauties, half the magic has bounced back off the woodwork, so to speak.

Non-league

So what about footy management fans who don't care about team accuracy and just want a decent game? Well, they should be fairly satisfied. The interface is quite instinctive, the graphics and statistic layouts quite user-friendly, and even the in-game match display and incidental animations are acceptable. Where the game falls down is in its 'average-ness'. There is simply nothing here we've not seen a hundred times before, however. Gremlin's Premier Manager series at least attempted to evolve, and Daze Marketing's On The Ball was the first to successfully implement arcade-like graphics, but other than that, you have to ask what footy management games can do to progress.

I would say the only reason to have brought out a product such as this right now would be to offer gamers the most up-to-date teams, but while Arsenal enjoy Shilton in goal and McAteer up-front, it's hard to justify this particular release.



▲ Hmm yes... what a realistic and up to date line up I have here. Can I stand the excitement of the choices I have to make? I just don't know.

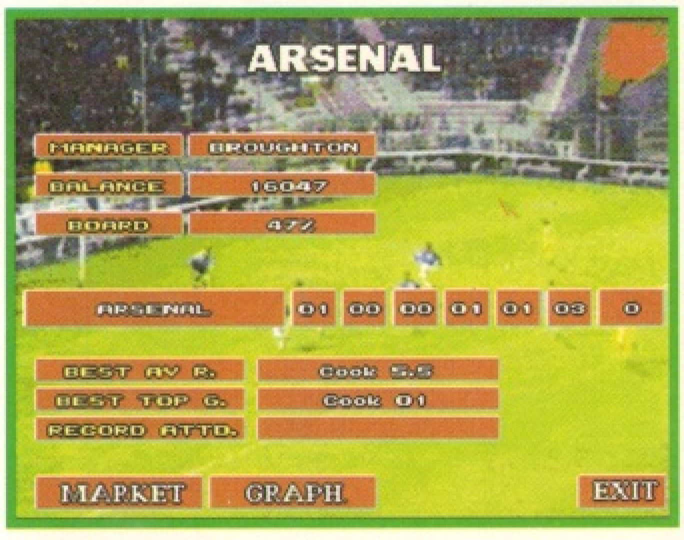
Familiar footy

Another criticism of Euro League Manager is that, while being unoriginal is hardly an unusual crime in this industry, copying presentation from other games practically down to the last pixel is a bit iffy. The main screen looks very like On The Ball, the team formation screenlooks like SWOS... and on, and on...And that's it, really. Yes, it does the job. Yes, you can buy, sell, scout, transfer, play, attack, rest and injure. No, you can't say this is any different than all the rest. And as such, it doesn't get a kicking, but it does get a less than shining set of marks. The final score? Nil-nil I'm afraid! ■

Matt Broughton



▲ Watching the in game action can be more than tedious at times as it can be quite slow on some Amigas.



▲ And Arsenal's manager Mr Matt Broughton tries his best to get his team to the top of the league before falling asleep from boredom.

EURO LEAGUE MANAGER

A500 · A500+ · A600 · A1200 · A1500 · A2000 · A3000 · A4000

- workbench version.........1.3
- number of disks 3
- RAM...............................2Mb
- hard disk installable ......yes

graphics	60%
sound	10%
lastability	38%
playability	45%

OVERALL
OK to look at and fairly playable. Ish.
51%

Budget Games



Electronic Arts re-releases from Guildhall Leisure: 01302 890000

A good crop of re-releases have turned up this month, including three from our all time top 50! Martin Davies takes a second look.

Wing Commander

Price: £9.99

AMIGA SUPERSTAR

When Wing Commander first came out it was one of the those advanced texture-mapped, gouraud-shaded games that the Amiga struggled with at the time, and was widely regarded as too slow to be playable. That was mostly because the A500 was still considered to be the most popular Amiga, but these days almost everyone has at least an A1200 with some Fast RAM, so maybe Wing Commander's time has come at last.

Wing Commander is similar to Elite and Frontier, but moves the emphasis over to the shoot 'em up side of things. Even so, there are plenty of themed missions which involve protecting ships, destroying enemy patrols, tackling enemy space destroyers and generally saving the galaxy. As the missions unfold, they tell a story which does add a lot to the atmosphere of a game, unlike the usual pap that fills the first couple of pages of your average instruction book.

Against the odds, Wing Commander manages to make a decent, fairly long lasting challenge out of what boils down to a few simple shoot 'em up sections strung together with the occasional strategic interlude. In that respect it's a bit like a version of Cinemaware's Wings, but set in space. For a relatively old game, it's quite stable on accelerated Amigas. We tested it mainly on a Blizzard 1230-II and it crashed only occasionally. It's hard drive installable too! While Wing Commander is never going be thought of as an Amiga classic, but at this price it starts to look far more appealing, especially if you have a half-decent Amiga to play it on. A good zap that's worth a shot.





92%

FIFA Soccer

Price: £14.99



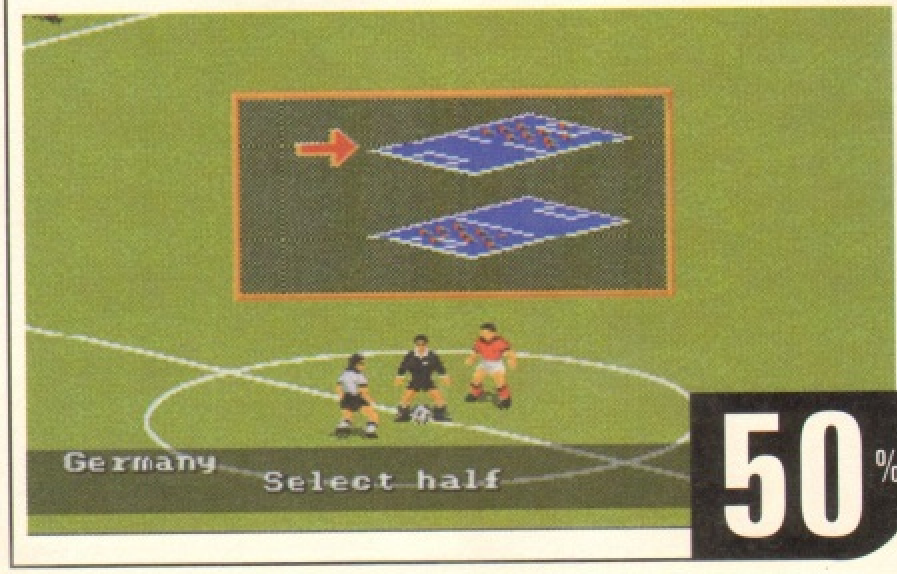


Somehow FIFA Soccer managed to get almost universally good reviews on all formats when it came out a few years ago. To be fair it wasn't a bad game in its console forms, but they made a right mess of the Amiga conversion. At the time there seemed to be a tendency to over-rate Amiga games in the Amiga mags, perhaps as some kind of defence against the rising tide of opinion that said the Amiga was no longer a viable games machine.

Well let's be frank about this. FIFA Soccer is rubbish. It looks great in still screenshot, but once it starts moving, everything falls apart at the seams. First of all the pitch jerks around in a headache-inducing manner, with the ball flickering here and there in similar fashion.

However, the worst aspect of the game is its awful controls. The movements of the players at times seem to be totally unconnected to your joystick movements, with sprites skating about like badly behaved shopping trolleys. This is the kind of game that finally did give the Amiga a bad name as a games machine, not because it wasn't up to the job, but because all the decent programmers seemed to have moved onto the PC and consoles. If you want an alternative to SWOS, try Dino Dini's Goal! or even Wembley International Soccer.

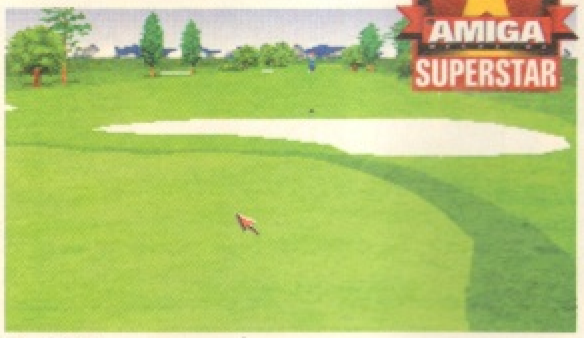




50%

PGA Tour Golf

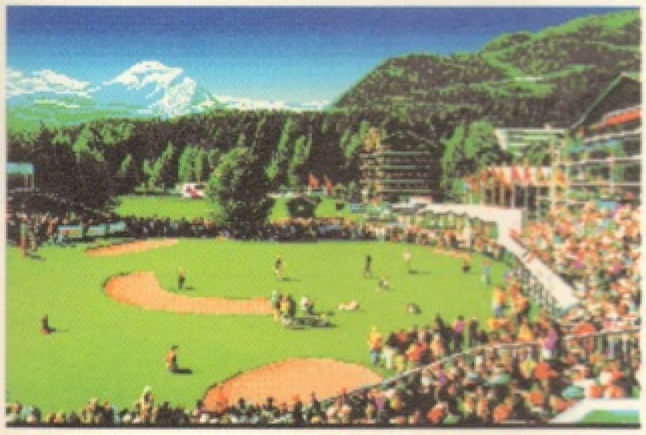
Price: £9.99



There's something curiously relaxing about playing a round of computer golf, especially if you've got a few mates to join in. Despite all the flashy 3D animated golf games on the PC, computer golf doesn't get much better than this. PGA Tour Golf is a classy game – simple enough to be picked up and and enjoyed in minutes, with enough depth and golf-spotter details to satisfy most enthusiasts. Most importantly, the only elements of luck in the game are the natural elements, so you're not penalised by balls rolling unrealistically or jerky reactions from the swing-o-meter. As with most good sports sims, lasting appeal is one of PGA's strongest points. Our copy corrupted before we could grab it, so these pics are from the slightly more attractive PGA European Tour. The only major difference is the lack of the pseudo texture maps on the original PGA Tour Golf version. This is an essential buy for all golf and sports fans.



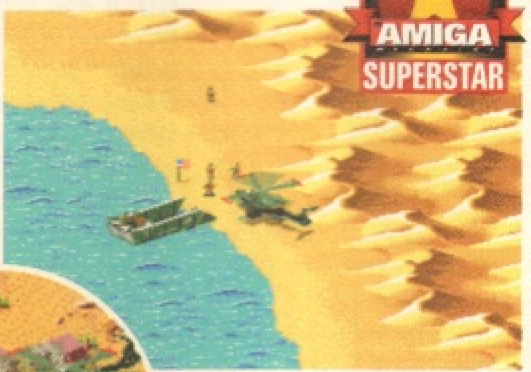




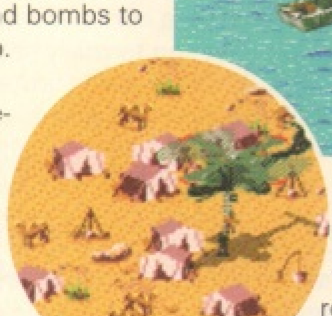
93%

Desert Strike

Price: £9.99



This is a great little shoot 'em up which draws on the Choplifter search and rescue idea, twists it into a chunky isometric 3D viewpoint and throws in loads of shooting and bombs to liven things up. There's just enough strategy involved in the gameplay to broaden its appeal from that of a simple shoot 'em up, but it still manages to retain all the excitement and satisfaction of the best blasters around. Part of this is due to the satisfyingly solid look and feel of the graphics, from the chopper itself to the buildings, enemy vehicles and the little soldiers themselves. With loads of exciting missions to work through, POWs to rescue, buildings to destroy, hidden ammo to find, and tiny soldiers to blow to smithereens with your missiles, there's enough bloodthirsty action here to keep most righteous desktop warmongers happy for weeks on end.



90%

Theme Park

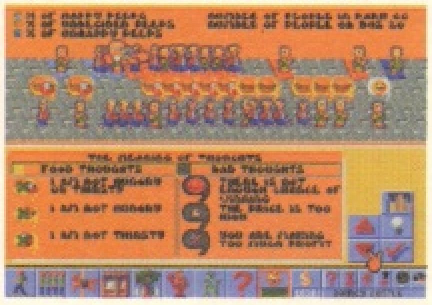
Price: £14.99



One of the last releases from the much missed Bullfrog Productions, Theme Park is a management simulator that puts you in control of your own version of Disney World.

It follows the basic theme of previous Bullfrog 'god' games, in which the main idea is to build your own empire. There's no direct enemy this time, apart from your finances battles are won and lost on the hotdog stalls, the rollercoasters and the ghost trains. It's bums on seats you're after, and to get those you need to make sure you've got the biggest and best rides, along with the fastest food and the happiest greeters. While it doesn't have the sinister atmosphere of Syndicate or the 'world in your hands' appeal of Populous, it's loads of fun in a good old fashioned Uncle Sam kind of a way.





88%

Road Rash

Price: £9.99

Road Rash came along at a time when the Amiga could really have done with a decent 3D racing game – what a shame this wasn't it. From the EA fold, it takes the somewhat predictable image of the rock and rolling biker who like a bit of a 'rumble', and uses that to inject a beat 'em up element into the game's basic racing backbone.

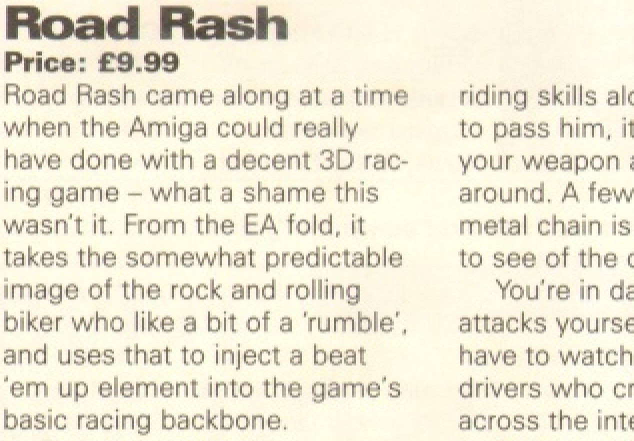
Rather than have the races set around Grand Prix circuits, all of these take place on the long open roads of the USA. You won't see much in the way of scenery, just a few trees really. The roads twist around in a none-too-taxing manner with regular humps in the road that launch your bike skyward.

If you happen to spy an opposing racer and find that your riding skills alone are not enough to pass him, it's time to get out your weapon and start waving it around. A few clouts with a metal chain is normally enough to see of the competition.

You're in danger from similar attacks yourself, and you also have to watch out for the Sunday drivers who cruise gormlessly across the intersections.

The best bit of the game comes when you and your 'horse of steel' are parted. Once you've recovered from your tumble on the tarmac, you have to get back on your feet and run back to your bike to re-join the chase, guiding your bow legged rider through the oncoming traffic to avoid a second pasting.

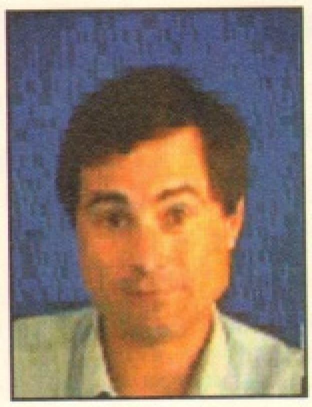
On reflection Road Rash is far better suited to a budget release than a full price one, not because it's substandard, but because it offers a good bit of short term fun before it's inevitably consigned to the bottom drawer.



72%

Reach for the stars

Continuing our series in which we probe famous game programmers we talk to one of the elite: welcome Mr David Braben.



Name: **David Braben**
Age: **33**
Born: **Nottingham**
Occupation: Games Developer
Biggest success: **Virus, Elite, Frontier**

CU: ***What was the first computer game you ever wrote?***
DB: "I dabbled with games on the Acorn Atom, for my amusement, before writing anything commercial.

The first game I did was a two-player game called Nuclear War which was a bit like Missile Command. Meteors was another one which was like a side-on Asteroids type Lunar Lander game. My first commercial game, though, was Elite.

CU: ***Elite is what everybody knows you for. What was your inspiration for this?***

"With large corporate teams, I think much of the love has gone from games development."

DB: I drew my influence from science fiction books and films such Star Wars, for instance. I also first realised that 3D line-drawn shapes could be drawn really fast when I saw the Acorn game Fighter. So when I met Ian Bell at University and we agreed to collaborate on Elite I already had some ideas and 3D code to work with.

CU: ***After Virus and Elite, along came your most eagerly-awaited title, Frontier: Elite 2. How long did the sequel take to write compared to the original?***
DB: Elite took two of us around two years to write. Frontier took five and a half years.

CU: ***Why did you never release the third game in the wonderful Elite series, 'First Encounters?***
DB: This is something I feel sad about. I always intended to do First Encounters on the Amiga as well as the PC but during development it became clear there were real problems with Commodore and the Amiga market had become very fragmented.

First Encounters is also more complicated than Frontier, both graphically and in gameplay terms. My preference was for an AGA only version, for the A1200 and A4000, but according to Gametek, AGA-only games were not commercially viable at that time, particularly as First Encounters would need more than the standard 1Mb of RAM, since the standard Amiga version would be far too slow, and the whole project was abandoned."

CU: ***Widescreen visuals... stereophonic sounds ... voxel mapped graphics, forgotten gameplay ... Is the industry heading down the wrong way?***
DB: "For a long time, since the advent of the Atari ST and Amiga, there have been games sold purely on their look, rather than gameplay.

Generally it is these games that do not survive the test of time, and the games that we remember fondly from ten years ago or whatever are those that we enjoy playing. Often we forget that there was rubbish around then, too!"

CU: ***What do think of the old one-man efforts as opposed to today's 15-35 man teams of people used to write games now?***



▲ Elite: probably the greatest game in the world. And David Braben is the man responsible.

DB: "The old 'one-man' efforts were very much one person's personal vision of how a particular game should be. This tended to produce slightly quirky but still very interesting games. With large corporate teams, I think much of the love has gone from games development."

CU: ***If and when a new Amiga was released which was equal or more powerful than a PC, would Frontier Developments write games for it?***
DB: "Yes, we (Frontier Developments Ltd) would probably support it but only as long as it was a serious contender. Many new machines have come and gone, without having anything to really set them apart, ie 3DO, CDi, CD32 etc. It would have to have a major backer or backers, and some significant selling point over the PC, like price or performance."

CU: ***Do you have any fond memories of your first Amiga experience and what made it special for you ?***
DB: "I bought an American Amiga 1000 when they first came out, and got Marble Madness and some awful tank game. I thought Marble Madness was great.

The Amiga packed more memory compared to the BBC machines that I had been using. It was also a nice machine to program. I started work on Virus as soon as I had the machine." ■
Mark Forbes

Tips Central



Hello. Hello. Hello. What's all this then? Let's be 'aving you. Matt Broughton and Tony Gill are here with the tips. Remember any tips printed are eligible for a free Hit Squad game. All right?

ZEEWOLF 2

Binary Asylum

All right, all right I give in! I keep getting lots of letters asking for the passwords, so here they are, courtesy of Newcastle's Daniel Rutherford.

Mission 6	**ourgan**
Mission 8	**jmargus**
Mission 9	**stag**
Mission 11	**kraken**
Mission 14	**station**
Mission 16	**gbull**
Mission 18	**statipause**
Mission 20	**doitnow**
Mission 23	**shipdeck**
Mission 25	**globoff**
Mission 26	**behave**
Mission 29	**maxfuel**
Mission 30	**pelpay**
Mission 31	**domino**
Mission 32	**steerdart**

ULTIMATE SOCCER MANAGER

Impressions

David Williams of Staffs has a handy cheat for said footy management game. Type your name in as **'Make Believe'** and then press the these buttons during the match for the following effects:

'+' for £100,000
'G' for the last person that passed the ball to score a goal
'E' for a penalty shoot-out
'F' for a foul
'1, 2 or 3' to win 1, 2 or 3-nil
'4, 5 or 6' to lose 1, 2 or 3-nil (yeah, like I'm gonna' do that!)
'Esc' to end the half

WORMS

Team 17

No, not more 'very interesting' level codes, but a way to get uzi guns, mines and cluster bombs after using the TOTAL WORMAGE cheat. When you push the right mouse button to get weapon select, hover over one of the new weapons and push the right mouse button again. Just as the weapon screen has flipped over, quickly press the left mouse button. Now you'll have access to the original weapon (eg banana bomb, cluster bomb, etc) Cheers to Glenn White of Portsmouth for that!



Worms

FRONTIER

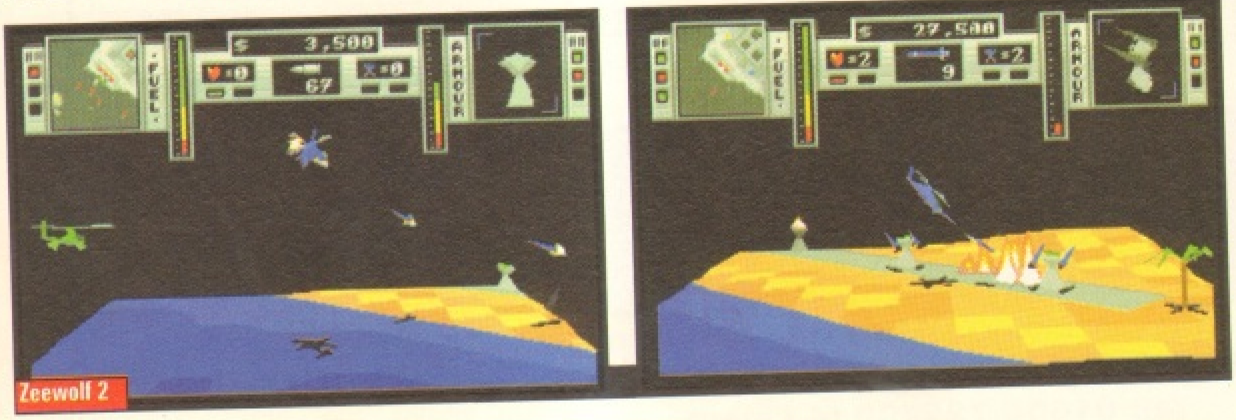
Gametek

Hurrah! Yes, our regular Frontier spot returns with a corker! Thanks to Andrew Grosvenor of Somerset for this one: Start at Ross 154 and buy as much hydrogen fuel as you can. Now jump to Cemiess (-2, -2) and go to Williams Relay (that orbits Donaldson). Once here SELL EVERYTHING that can be removed from your ship and then log on to the bulletin board and find Richard's Exchange. If it isn't there, speed up time until the next day and then look again. Go to Richard's Exchange and look for precious metals and gemstones. You'll see that they are items you get paid for removing so fill your ship's hull with the things and then go to the shipyard and buy the cheapest ship you can find (not an interplanetary shuttle or lifter, preferably another eagle). Sell everything from your ship again, including the engine, and go back to Richard's Exchange and fill up again. Now it's back to the shipyard to buy another ship... and so on and so on. Keep this up until you have enough to buy a Pantha Clipper, then fill up your hull again, but this time sell the cargo at Sol. You should then buy a 30MW Mining Laser and fly to Mars, find one of its moons and keep firing at it. This will (magically) improve your Elite rating! Cool. Incidentally, if you find that Richard's Exchange ever run out of precious metals and gemstones, just fast forward time until it restocks.



TIPS BE GONE!

Demons leave this place! With your nasty 'free-game-please' ways, I think we'd all be a lot happier if you'd just left. If, however, you have a DECENT tip (and no, I don't mean you know how to do that 'cabin/passenger' thing in Frontier) then you can get a free Hit Squad game – so get 'em in! Be seeing you ...



Zeewolf 2



Monkey Island

KGB

In Chapter one, I can't get into Hollywood's apartment. I know Hollywood is one of the tough-looking twins. I've killed the barman and pinched the money and key. I've also gotten into the club, talked to everyone and pinched the cocaine.

I think that Hollywood's apartment is No 6, but at 11pm I always end up on guard duty in Siberia and so I can't get in. What should I do next?

Gary Jefferson, Gateshead.

You're a bit of a vicious tea-leaf aren't you? All of this thieving and violence is going to bring you to a bad end, just see if it doesn't.

Well as you have gotten yourself into the club, we may as well go on from there. First flush the cocaine down the toilet, you know it makes sense. Buy the cassette from the guy that's called Video, then go outside with the twins. Attack the big guy (Lyonka) and take the skeleton key which he's got on him.

You can now get into the meat shop next door. Using your matches you'll be able to find your way to switching on the red bulb and go into the cold room. You'll find enough evidence of evil deeds in here to force the butcher to tell you a few things you need to know. (Oh, by the way, don't forget to switch the red bulb off before you leave.)

Simon the Sorcerer

Please do you know where I can find the feather in this game? I'd love to tickle that lazy little elf but I've searched everywhere and I can't find it.

W Rigby, Southampton.

Perhaps you should have a word with that wise old bird who is sitting in the centre of the forest. The owl knows the answer to many things and what's more he's covered in nice colourful feathers!

It's best to have a good rummage and look at the area around him, sooner or later he'll be sure to moult and then you'll get what you're looking for.

Monkey Island

I have been playing Monkey Island for a week (NON-STOP!) and I am having difficulty finding my way around the caves. A few directions would be helpful and very gratefully received by these particular gamesters.

Rich & Day, Ivybridge.

Well how about North, South, East and West? They are really nice directions and I've been using them for years.

Of course if you want to get ahead, you really should get 'a head'. In fact the only way to find the path through the caves is to use the magical head that the natives own. They will swop the one they have for that really useful piece of paper that you were given by Stan, the one that tells you how to get 'Ahead'.

Curse of Enchantia

I have been stuck on one part of this game for about two or three years now. I was really enjoying it until I got stuck. I have to get rid of the robot outside the boat to allow me to enter, but for some reason, when I try to lay one of the two planks over the water in the boat, he puts it down the wrong way.

No one I know can figure out what you have to do, and the game that was my favourite is now driving me mad. You're my last hope please help?

Joe Brightwell, Tilbury

You've been stuck for two years! What have you been waiting for – divine intervention? It sounds to me as if some direct action is needed here. That robot needs a good thumping for being such a nuisance. What you need is to make a cosh and give him a thump with it.

You can make a cosh using an old sock with a pile of coins inside it. There are a pile of socks nearby that you can easily select one from, and there are also a load of coins that you can pick up just past the robot.

There is a load of pushing and pulling of planks to be done after this as well, and some of it is just trial and error.

When you enter the boat pick up a plank then walk to just left of centre of the screen. Push/Pull the plank and it should fall from left to right. (This may take a few attempts) Leave the boat, go to the robot and then re-enter the boat, Pick up the other plank and you should now be able to walk across the water in the centre of the screen to the other side. Push/Pull the plank to drop it. Look on the floor for paper. Pick up the paper and the plank. Walk to the other side. Push/Pull the plank and exit.

Space Quest

Could you please stop me from going crazy by telling me how to obtain the code number for disabling the star generator in Space Quest?

S Wright, Stevenage.

Well I do know that the code you are looking for is 6858, but as I was knee-high to a grasshopper when I first played the game I can't recall exactly where I found the damn thing.

I also know that the final sequence involves dropping a grenade on the man in the Generator Room, then searching the body (Yucky!) to find the control.

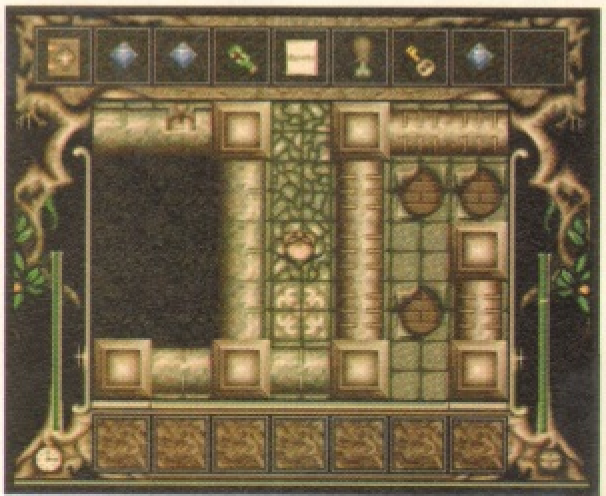
Push the button then examine the panel and type in the code. I trust that will get you star trekking again.

Valhalla – Before The War

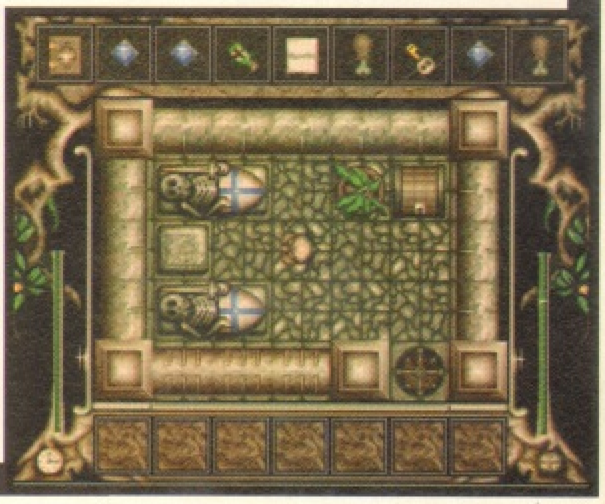
How do you wake the cook? How do you get to see the Goblin when you have got a gift for the King, and what is the stew for?

L Davies, Lancashire.

Well stew is for eating, and I would think that the hungry old man would be grateful for some. Of course you'll first need to make a nice bowl from soggy clay to hold the stew, and for that you will need a potter's wheel and a kiln. By placing some sleeping pills on an altar you'll be able to transform them into a nightmare spell and that should scare the cook awake. If you replace the piece of paper next to the Goblin with the King's Gift things should take a turn for the better.







Valhalla – Before the war

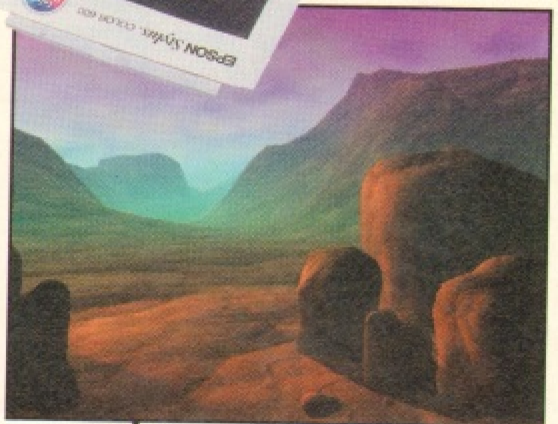
Tech Scene

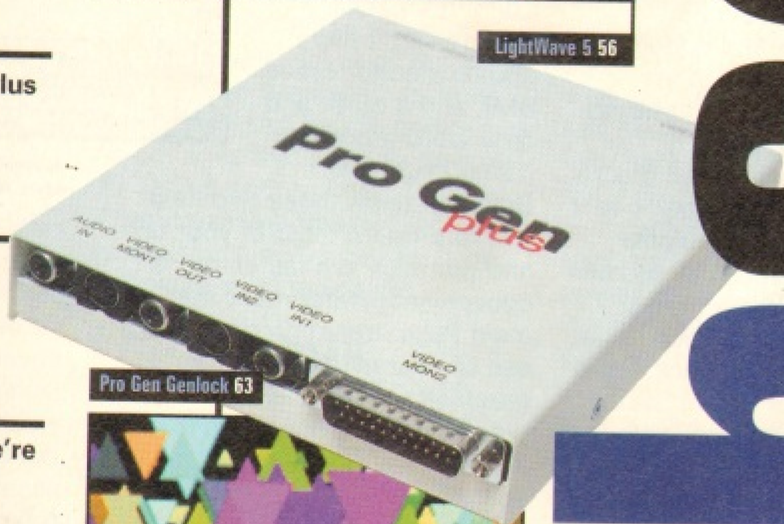


Starting as we mean to go on, we review the best DTP package followed by the greatest rendering program and a whole host of other goodies.

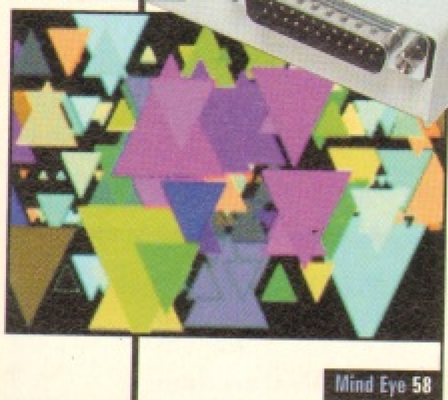


Epson Stylus 600 60


LightWave 5 56



Pro Gen Genlock 63


Mind Eye 58


PageStream 52

PageStream 3.2

■ Price: £125 ■ Developer: Soft-Logic Inc ■ Supplier: LH Publishing © 01908 370230

AMIGA SUPERSTAR

Now at version 3.2, the ever-popular PageStream at last looks to have come of age.

In the record book of all time most popular cover disk programs, PageStream 2.2 ranks up there in the top five alongside such greats as Imagine, Image FX, SoundStudio and Wordworth. More importantly it introduced tens of thousands of Amiga users to the world of real DTP. Not just word processing with knobs on, but the full monty, capable of producing slick documents, even full blown magazines and books.

By that time the current commercial release had already reached version 3, and undergone a major transformation in the processes. PageStream 3 offered much more than 2.2, but it seemed to have grown too quickly for its own good, and developed a number of bugs and problems along the way. A series of updates and bug fixes followed from developers Soft-Logik, keen to get their package back on track. From the user's point of view it seemed to be getting a bit messy, and while Soft-Logik should be applauded for making such an effort to fix up the program, the constant tweaks seem to have undermined its reputation as a good, solid professional DTP package. Well at last it looks as if that corner has been turned with the release of version 3.2.

Multi-talented

Now that PageStream is 'out of the woods', it's now a lot easier to see just how much it has moved on. Along with the main program, the package includes a bitmap graphics editor called BME and a quick and dirty word processor called PageLiner. Between them these two help you to prepare most of your text and graphics in a faster, more convenient environment than the main PageStream program. You can of course use any other graphics packages and word processors you may have to create words and pictures for use in your documents.

However, it looks like most of the development time has gone into adding new features to the main program. In fact there's now so much on offer that to a newcomer it could all be rather bewildering. Anyone who's still using version 2.2 will have a wealth of new toys to play with, but there is the learning curve to scale first. Even users of more recent versions are likely to find themselves swimming against the tide for while.

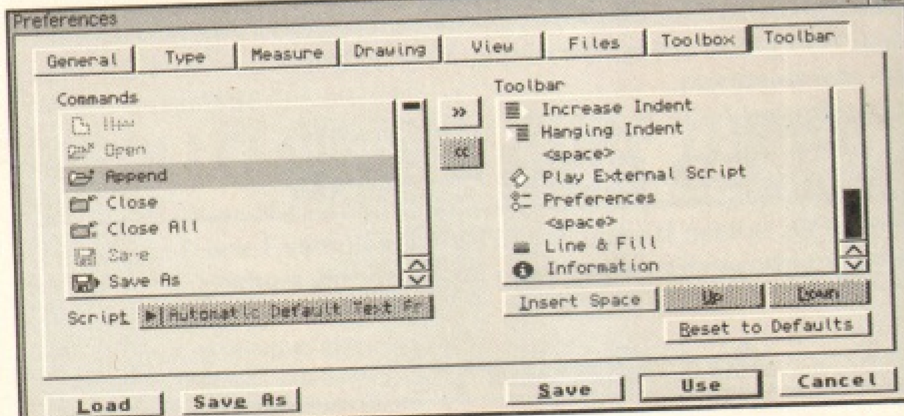
Communicating with PageStream, is done three ways. There are the menus, keyboard shortcuts and floating palettes. Your current document sits in its own window but PageStream 3.2 also enables you to have different views of the same document (for example, a zoomed-out version for reference and a close-up view for detailed changes). With all these windows, toolbars and so on, it can get quite crowded, especially on a 640 x 480 screen. If you want to make the best use of the program's 'power features' you should really run it on a graphics card, with a big flicker-free high resolution display. This makes the pro-



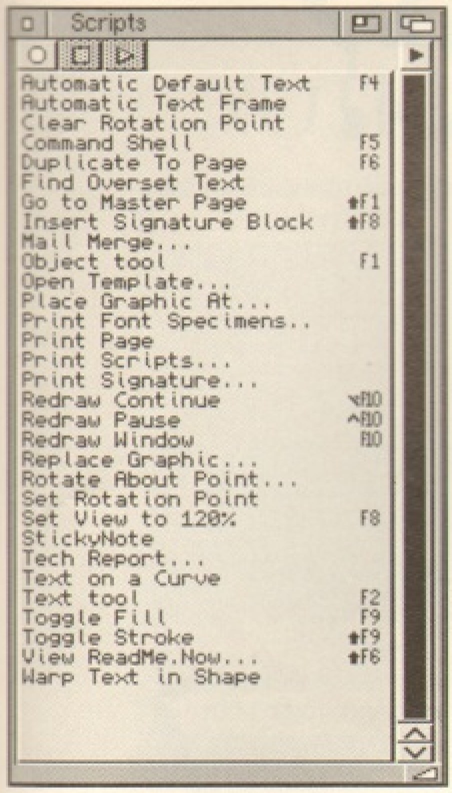
▲ PageStream 3 is back, and this time it's finished and ready for action. With high end features like multiple views, masking, text in shapes and lots more, anyone serious about DTP should take a close look.

Highlights for Pagestream V3.2

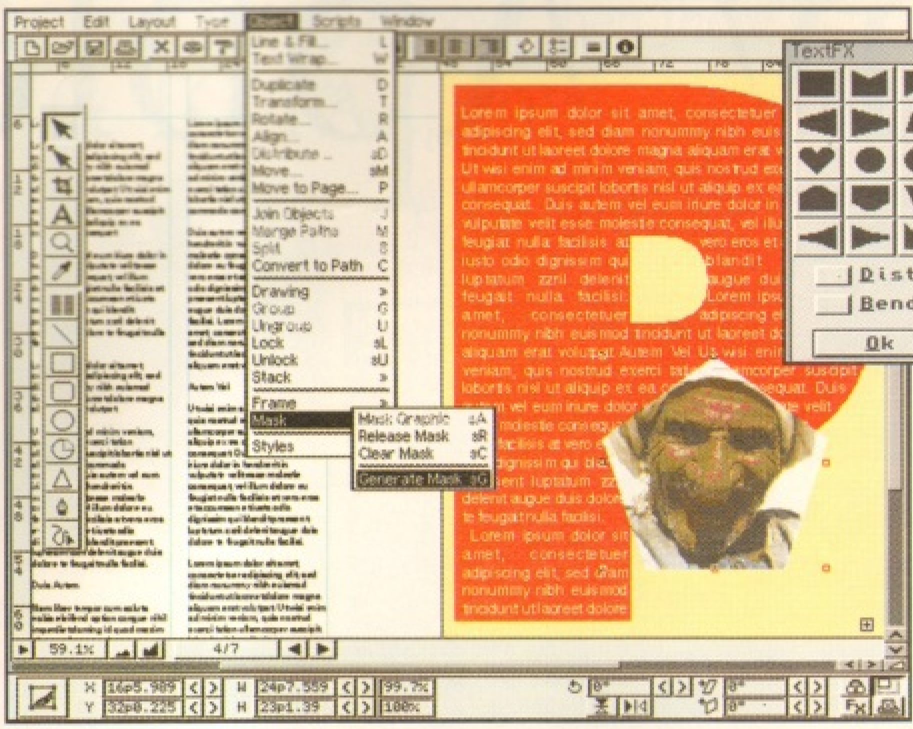
- New Eyedropper tool to copy and paste text and object attributes.
- A Toolbar tab has been added to the Preferences requester so you can now choose which menu commands and scripts should be in the toolbar.
- Hanging Indent button.
- The default tab spacing can now be set to any value for a range of text.
- Objects dragged to the pasteboard surrounding the page are now visible and selectable on all pages in a chapter.
- Recent Files sub menu displaying the last eight documents that have been opened.
- You can now mask drawings, EPS illustrations, and pictures, with any shape.
- Effects can now be applied to pictures within PageStream 3.2.



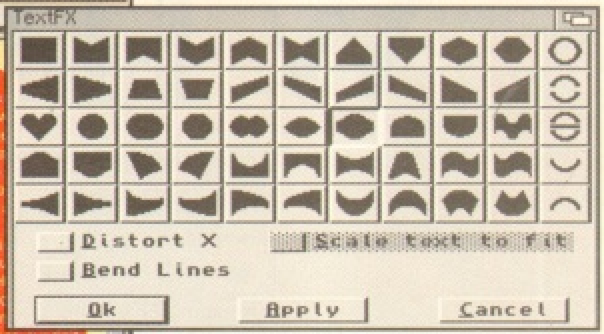
▲ PageStream 3 is very configurable. All your preference tweaking is taken care of from one panel, in a similar style to the MUI prefs used by Magic User Interface productions: neat and very easy to use.



▲ The ARexx interface is one of PageStream's most powerful functions. There are lots of sample scripts to help you take advantage of it.



▲ Putting text in a letter like this is child's play, as is filling a shape with an image.



▲ There is a new TextFX extension called TextFX 2 but the old one is included as standard.

gram much easier to get to grips with, as you can have all your commonly used bits and pieces set out around the screen.

Word games

Playing with words in PageStream 3.2 is an interesting experience. As before, you can enter text straight onto the page. Alternatively you can create frames into which text can be imported or typed. These text frames can have any number of internal columns and you can edit other parameter such as the gutter size, but there are no margin settings. Even so, you can work around this with the help of paragraph indent settings.

There are plenty of creative features available when it comes to text manipulation. One of the best is the way you can, for example, take a character such as the letter P in the picture above, convert it to a text frame, and then flow a new batch of text into the P-shaped frame. You might ask yourself why you would want to do that, but with some thought and imagination it opens up a lot of prospects for quick and easy designs that are far removed from the normal three or four-column text layouts. There are plenty of other text-based effects that are possible from just a few mouse clicks, like text bent into a curve, warped text and all that sort of thing.

Although PageStream is very strong when it comes to text, it's even better at handling graphics. From its drawing tools to the special effects you can apply to images within the program itself, there is very little the program can't do.

PageStream supports a wide variety of graphics formats, both structured and bitmaps, which can be imported and exported. Once in the program, images can be cropped, or even better, masked where a shape is placed over an image to create a mask around it. You can for example, take an image, place some text over it and mask the image so all you see is the image in the shape of the text. Brilliant!

To help conserve memory, graphics can be left external, which means that low resolution 'positional' versions of the images are used as you work on your pages while the image itself is left on disk. When you output the document, the original full size pictures are called up from disk to be used for the printout. Any images that need to be edited can be sent to BME, PageStream's bitmap editor where touching up can be done or special effects applied.

Hard copy

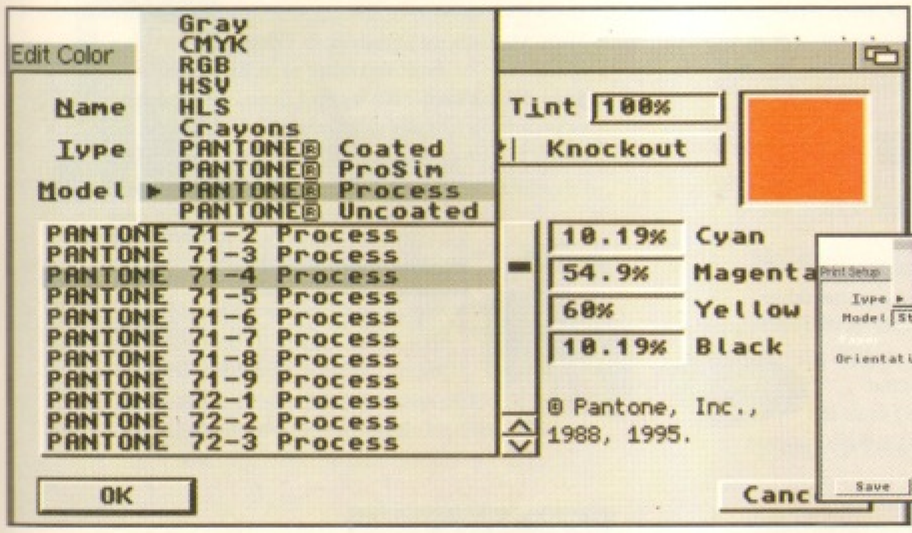
After spending hours, perhaps days creating a layout, the one thing you don't want to do is have problems printing. In our tests we had no such difficulty printing to both PostScript and non-PostScript printers, including TurboPrint 5.

Unlike the output from PageStream 2, which does its own dithering of graphics, version 3.2 leaves that to the likes of Print Studio and TurboPrint, which are far better at the job. There is actually PageStream 3.2 driver for Print Studio II, making them the ideal partners.

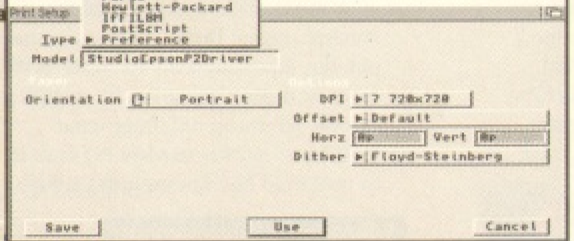
From what was looking to be a rather shaky program, Soft-Logik have now created a real killer application. The kind of program that assumes its users mean business, and will have tooled themselves up accordingly. To get the best from it, you'll need plenty of RAM and a fast processor. It's all relative, but a 50mHz 030 would have enough power to get it moving around at a productive rate. A graphics card would also help enormously, not just because of the higher resolutions and lack of flicker, but also the extra speed it would offer over the relatively slow native Amiga graphics, especially the painfully slow multiscan AGA modes.

If you just want to bang out a few newsletters, most of what's new here will just get in the way, but if you've been looking on jealously at DTP systems on other platforms, you'll welcome the power and features of PageStream with open arms. With many built-in tricks and functions that are not even available on the industry standard DTP systems, you'lleven be able to steal a march on your PC and Mac opponents!■

Tony Horgan



▲ You will never run short of a colour: there are thousands available in the various colour catalogues in PageStream 3's edit colour requester.



▲ Printing is well taken care of thanks to many custom drivers as well as support for printer preferences and PostScript.

PAGESTREAM 3.2

A500	**system requirements:** 68000, Workbench 2.04, hard disk and 4Mb of free memory. 68060, Workbench 3.1 and 8Mb free memory recommended.
A500+	
A600	**ease of use** .... 89% It's a big package that will take time to get used to but the effort is worth it.
A1200	**performance** .... 95% A crawls a bit on a basic system, but with enough power it's a mean application.
A1500	**value for money** .... 92% It may not seem cheap, but you get a hell of a lot for your £125.
A2000	
A3000	**OVERALL** An affordable killer application. Brilliant. **92%**
A4000	

Why Apple?



One day we may see the rebirth of the Amiga with a PowerPC processor and other new features to enable it to compete again with today's systems. Sadly though, more than two years since Commodore's demise, very little of substance has happened. We've seen prototypes and promises, but that's about it...

Perhaps some can wait for the final outcome, but if you need more performance, without paying the earth - and you need it today - there's one real alternative to consider now...

Only Apple can offer you both desktop and portable computers that truly match the ease of use the Amiga brought to your desktop. Affordable Apple Macintosh systems have PowerPC RISC processors with thousands of off-the-shelf programs available in areas where the Amiga was previously so strong.

And, if you need to have the most compatible of all computers, Macintosh is currently the only system that can run MacOS, DOS and Windows applications via optional DOS Cards or SoftWindows.

Why Macintosh?

Performance:

All Macs are PowerPC based (except PowerBook 190s). Even entry level systems run at 100MHz or 120MHz, with 200MHz powerhouses and 180 MHz multi-processor systems at the top of the range.

MacOS

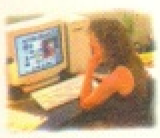
Apple is the only mainstream computer company who has been able to make the transition from the older CISC (complex instruction set computing) processors to the newer and faster RISC (reduced instruction set computing) processor technology - whilst still retaining full backward compatibility with previous software.
Remember 486, Pentium/Pro & 680X0 are merely CISC!

Software choice:



Over 1,800 native software packages (written specially for PowerPC Macs) have been shipped since Power Macintoshes were launched in 1994 - plus there are thousands of existing programs which can also be used. Industry standard programs such as Word, Pagestream, Word Perfect, Page FileMaker Pro, Excel, Quark Xpress, Photoshop and many others have all been developed for the Mac.

Creativity:



- Macintosh still dominates the creative world with an 80% market share in colour publishing.
- 65% of post-production video editing is on Macs.
- Macintosh is the most widely used system for the creation of Internet web pages.
- Most magazines (probably the one you're reading right now) are created on Macintosh.

The Internet & Communication:

INTERNET READY

- All Macs are Internet ready; many include a 28,800bps modem with full send/receive fax and answerphone management facilities.
- Industry standard web browsers, Netscape Navigator and Microsoft Internet Explorer, were developed for the Mac. Both give full access to all Web sites with new Internet page layout features like auto-tables and on-screen movies.



- The Internet's standard format for video files, called QuickTime (or QuickTime for Windows), was an Apple development. Of course it comes as standard with every Mac.

Connectivity & Expandability:

- All Macintoshes have networking built in as standard, so connecting systems together and adding shared printers etc. couldn't be easier.
- All Macintoshes have an external SCSI connector as standard (except Duos) - adding external drives, cartridge drives, scanners etc. really is Plug-and-Play.
- Low-cost digital cameras can be plugged into the Mac for instant real image input.
- Inexpensive industry standard PCI cards can be used in all Mac systems from the 5400 upwards.



Education & Edutainment:

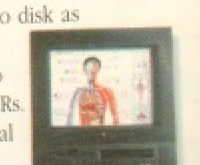
- Many quality Macintosh titles are widely available. Dorling Kindersley offer superb titles like The Ultimate Human Body and History of the World whilst Microsoft publish Encarta, Cinemania and Dinosaurs.
- Because Macintosh is the preferred system within many educational establishments, high quality software is assured.



Multimedia:

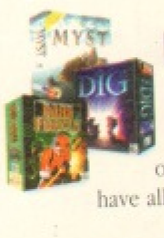
MULTIMEDIA EQUIPPED

- Apple is the World's No. 1 Multimedia PC vendor.
- All desktop Macs have a fast CD-ROM drive as standard (portables get internal CD soon too).
- In 1995, 42 of the top 50 selling CD-ROM titles worldwide were developed on the Macintosh.
- Many Macintoshes have built-in TV with teletext so TV clips can be recorded directly to disk as QuickTime movies.
- Many Macintoshes have built-in video in and out, for direct recording to VCRs.
- Some Macintoshes have internal digital video editing facilities as standard, others can be upgraded to include this facility with ease.



New 5400 'Black Mac' ideal for your home.

Recreation & Games:



- Top games like The Ultimate Doom, Myst, Rebel Assault II, Dark Forces, Descent, Afterlife, Lost Eden, Legend of Kyrandia, Full Throttle and The Dig have all been developed for Macintosh.

Output & Presentation:

- Connecting and using colour printers (from Epson, HP, Apple and others) to Macs is so easy and the results are truly outstanding.
- Many software packages are available offering image manipulation and superb photo quality output.



Interested?

All you need is 10% deposit then there's NOTHING TO PAY until Summer!✦

5320 Performa



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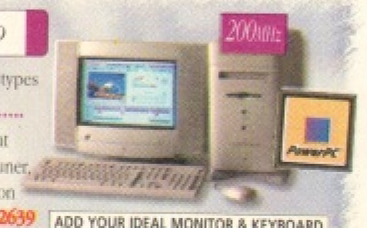
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FREE CLARIS WORKS 4

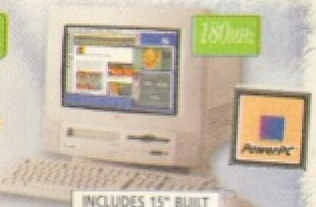
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Monitors



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- GH 15" Multisync £279
- Apple 15" Multiscan £339
- Apple 15" AV Multiscan £422
- Apple 17" 1705 TCO Multiscan £586
- Apple 17" 1710 TCO Multiscan £798
- Apple 17" 1710 AV TCO Multiscan £880
- Apple 20" Multiscan II £1526

Printers

Apple StyleWriter 1500 Colour £245



MORE PRINTERS... Ask for more details

- Apple StyleWriter 2500 Colour £339
- Epson Stylus 500 Colour £245
- Epson Stylus Pro A4 Colour £369
- Epson Stylus ProXL A3 Colour £974

Modems



- Apple Internet Connection Kit £55
- Global Village Teleport Gold 14.4 £59
- Motorola 3400 Pro V34 28.8 £117

Mac Software:

- All the best programs are available for your Mac and cost less than you might expect. A very small selection is shown below...

MYST	£37	ENCARTA '97	£46
THE DIG	£36	GROLIERS ENCYC.	£36
ABSOLUTE ZERO	£45	COREL DRAW SUITE...from	£116
ALONE IN THE DARK 3	£40	CLARIS WORKS 4	£111
DARK FORCES	£41	SOFTWINDOWS '95	£293

Mac Accessories:

- It's easy to add peripherals to your Mac. Just look below and see what's available - it's all plug and play!

KEYBOARDS...from	£47	MACALLY GAME PAD	£26
ZIP DRIVE - 100Mb	£147	MACALLY JOYSTICK	£38
1.2Gb. EXT. HARD DRIVE	£328 ✦	JETSTICK JOYSTICK	£45
WACOM ARTPAD II	£140	APPLE DESIGN SPEAKERS	£58
APPLE DOS CARDS...from	£575	1yr ON-SITE MAINTENANCE	£18

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- It's easy to buy your Mac with a GH Personal Finance Option.
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Price/Performance:

- Today's fastest Macintoshes outperform the fastest Pentium Pro systems - by a considerable margin!
- Macintosh systems have a far lower cost of ownership than Windows systems.
- Macs are much cheaper than comparable Amigas!

Price Comparison:

Amiga System:		*Macintosh System:*	
A1200 inc. 2Mb RAM	£350	Macintosh Performa 5400	
50MHz 68060 upgrade	£580	180MHz PowerPC 603e.	*Inc.*
16Mb RAM	£119	16Mb RAM	*Inc.*
1.6Gb Hard Drive	£300	1.6Gb Hard Drive	*Inc.*
8 x Speed CD ROM drive	£259	8x Speed CD ROM drive	*Inc.*
14" Monitor	£286	15" Monitor & Keyboard	*Inc.*
28.8k Modem	£135	28.8 Modem/Fax/Answerphone	*Inc.*
TV Options	*Not Available*	TV 'Live in Window' on screen	*Inc.*
Video In/Quicktime	*Not Available*	Video In/Quicktime	*Inc.*
PCI Card Facility	*Not Available*	PCI Card Facility	*Inc.*
Total for Amiga System	**£2029**	Total for Mac System	**£1996**

Remember, the Amiga shown above is still only CISC based, and.. if the comparison was for an A4000, the cost differential would be even greater!

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Why Harwoods?

Gordon Harwood Computers was founded as a specialist Commodore dealer in 1982 and we're still supporting Amiga users today. We began supplying Macintosh systems in 1991 when it became clear that Commodore was failing to capitalise on the technological advantage it had. We needed to have products available that fulfilled the needs of our customers who were demanding...

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- Systems without the problems and disadvantages associated with DOS/Windows, which still persist and trouble users even now.

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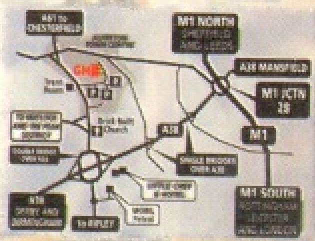
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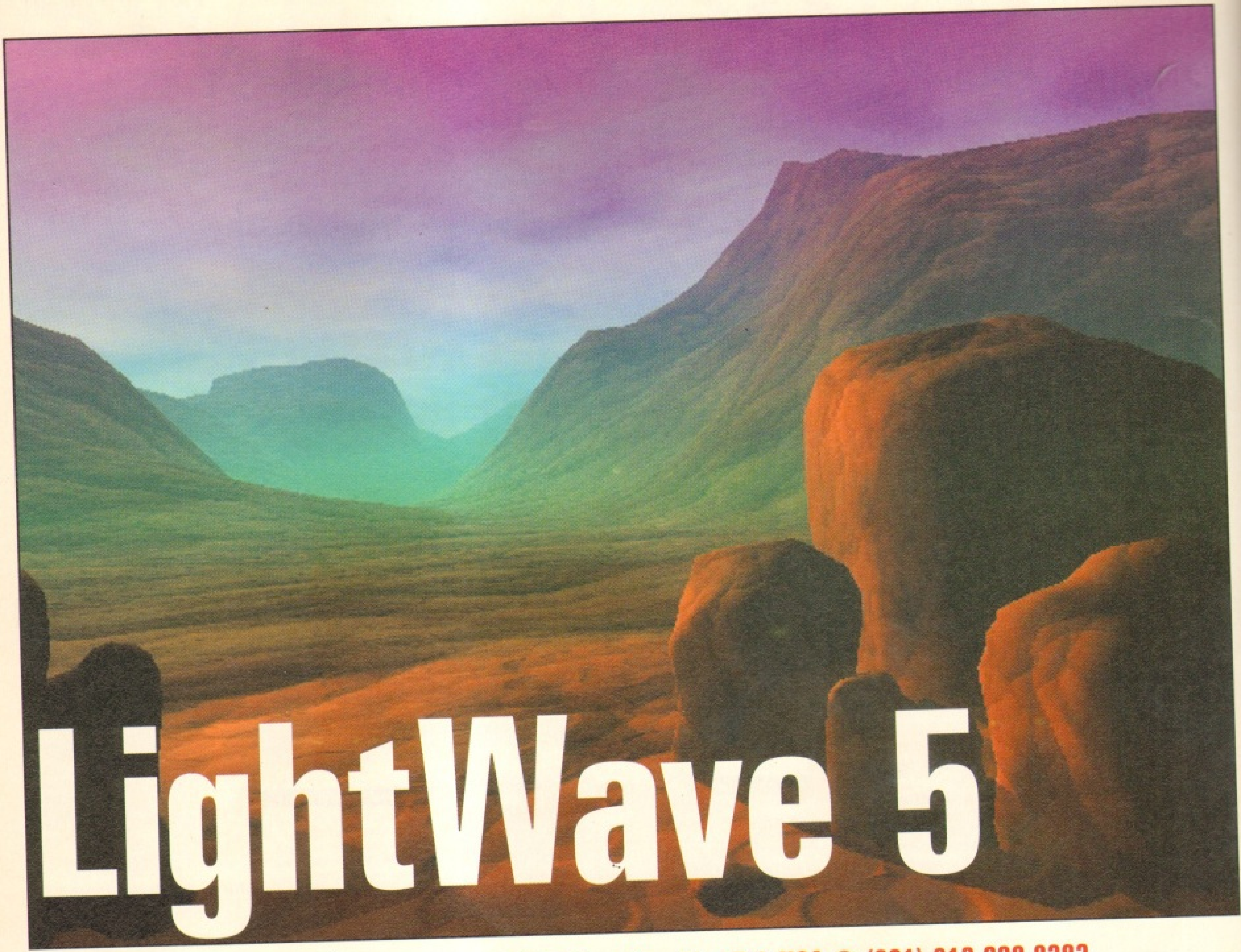


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Why Macintosh!

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LightWave 5

■ Price: US$1,295 (new) US$295 (upgrade) ■ Supplier: NewTek USA © (001) 913 228 8282

The ultimate Amiga 3D system is still going strong. Maybe it's time you got in on the action?

A legend in its own lunchtime, LightWave is a bit special. Playing a major part in the production of a string of popular TV sci-fi series, it's often wheeled out as a trump card in those never ending Amiga vs PC vs The Rest of the World debates. However, it's always existed on a different level to other Amiga rendering packages, remaining a tool for the few rather than the masses. Until version 3.5 it was unavailable to European Amiga users and even since then the asking price has been a stumbling block, lost in the void between the sub £200 hobbyist market and the £1,000 plus professional arena. With the latest release, NewTek seem to have decided they're going all out for the professional pound, so even though this is the most powerful version ever, it's slipped further from the reach of the average Amiga user.

In fact, LightWave 5 has been criticised quite severely in some quarters for its price-point, although if regarded as a professional tool, it's still quite cheap. Professional contract rendering can pay well and a few jobs could easily be enough to reimburse you for the initial outlay of the software. Well, enough of the price issues, what about the program itself?

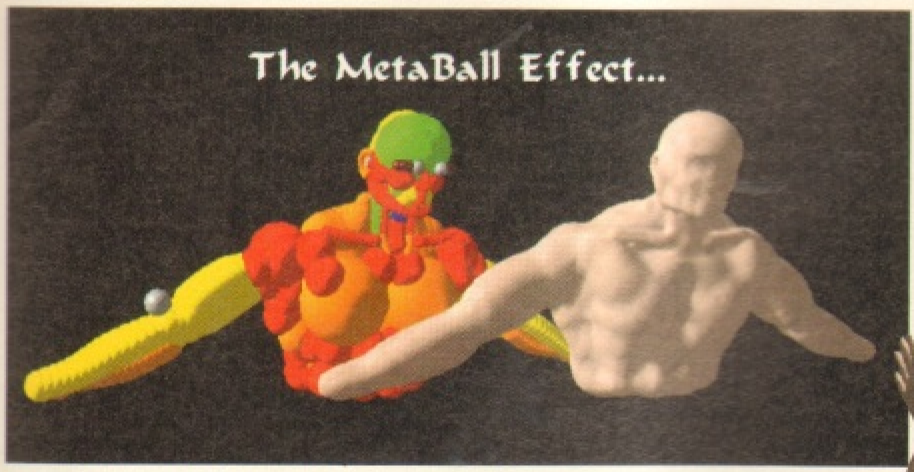
What's new?

As you can probably tell from the pictures on these pages, LightWave is pretty good at modelling and rendering realistic looking organic objects. The latest version offers a number of improvements and totally new features to make it even quicker and easier to make up your own creatures and humans, among other things. Everyone wants to render convincing humans at the moment, for use in everything from TV adverts to computer games to medical projects. This has traditionally been a bridge too far for all but the most expensive rendering systems and even then, 3D scanning and motion capture techniques are often used to 'cheat' where the whole thing can't be created from scratch. LightWave 5 has two new 'Meta Tools' for this job: Metaballs and Metanurbs. Metaballs are non-renderable polygons which when combined, grow a skin linking them together, a bit like a shrink-wrapping which can be as tight or as loose as you like.

With these metaballs you can build a sub-structure, such as that used to create the gruesome torso featured here, while the skin is formed over the top. As you can imagine, the resulting polygon count goes through the roof, but the extra load tends not to slow things down too much.

Metanurbs offer an alternative method of creating smooth edged objects without having to painstakingly manipulate thousands of polygons. The basic idea is that you make up some simple 'outer frames' which roughly resemble the shape you're trying to create.

You can then 'freeze' them by



▲ The multi-coloured guy is the metaball template. To make him I drew a sketch on paper, digitized it, then imported it to LightWave where I positioned the metaballs before finally generating the MetaMesh.

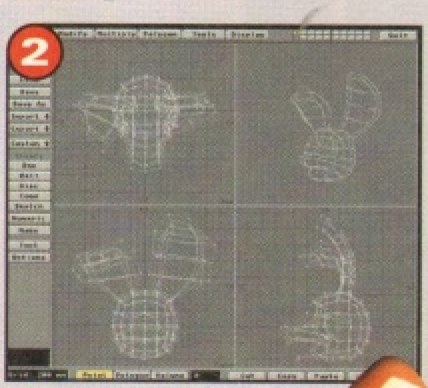




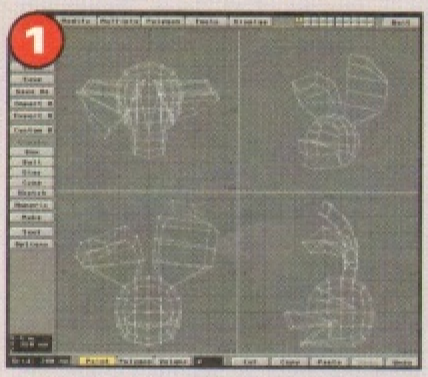
■ Michaelanelo anyone? Actually metaballs meet bones to create a one handed, torso-only bloke with a small head.

Modelling made easy

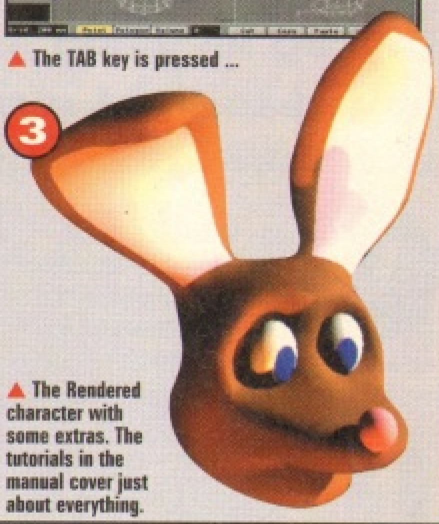
You can have all the special effects in the world but if your modelling isn't up to scratch, you've got no chance of winning any decent rendering contracts. LightWave's modeller is now better than ever. In this sequence, a very basic mesh in the first stage is transformed into a far smoother object in stage two with a mere flick of the Tab key. Next, the object is rendered, complete with its newly smoothed surfaces.



▲ The TAB key is pressed ...



▲ A two Metaformed cube is stretched about a bit to achieve some funky results ...



▲ The Rendered character with some extras. The tutorials in the manual cover just about everything.

pressing the Tab key, upon which the simple boxes are magically chiselled, filed and planed into smooth rounded versions of the original guide objects.

Once again, all the extra polygons required for the transformation are generated behind the scenes. It's features like these that can condense a day's work into a few minutes. Top stuff!

Better bones

Previously, LightWave's bones features left a lot to be desired. Along with inverse kinematics, bones are an important factor in animating realistic humans and creatures (they're pretty handy for moving machinery too). The major improvement with bones now is that the force exerted by a bone will now fall off at exponentially greater rates, which has the effect of creating more realistic interplay between connected moving parts of an object. It's also now possible to avoid the hose-like pinching of two limbs as they pivot together. Furthermore, you can now automatically simulate muscle bulging on bones – pumped up biceps are no problem. As for the inverse kinematics, there's no longer any need to specify keyframes. Instead you can use 'active goals' which is a much more intuitive system.

Users of Imagine would find the texturing features of LightWave curiously primitive, but now LightWave is catching up. Previously you couldn't mix and match procedural textures on a single object, but now you can throw a number of them, along with image maps, onto an object with various opacity settings for each. You'll need to get the order and settings right first time, but some excellent results are possible, from subtle to totally outrageous.

More animated

You want more? OK, for animators there are a couple of very neat new features. For example, the Effector function allows a null object (an invisible single point) to affect other objects by attracting and stretching them towards it, or repelling them, denting them inwards.

There's another one called Lazy Points, which when applied to an object, causes the outer points of the object to travel slower than the central point. When animated, this gives an object a strange jelly-like quality. If such an object is spun on an axis, it does a kind of twist. As you can imagine, these features give rise to loads of new possibilities for cartoon animators.

LightWave is still not perfect, not by a long chalk, but it's far and away the most powerful and useable 3D rendering package for the Amiga. In general, the price difference between this and the likes of Imagine and Cinema 4D is reflected in the overall quality of the software. It's a shame there's not a more affordable entry route into the world of LightWave though, because to justify buying the latest version, most users would have to be sure it was going to pay for itself in at least a semi-professional set-up.

Experienced LightWavers should be happy enough with the new additions and tweaks to make the upgrade worthwhile. If you're serious about 3D, maybe it's time you took the plunge. ■

Jeff Ranasinghe

The right tools for the job

If LightWave was judged on features alone, it would have quite a tough battle with other Amiga rendering packages such as Imagine and Real 3D. However, it's the working environment that has always held LightWave head and shoulders about the rest. Sure, Imagine could do just about anything this could do, and more, but it would probably take you five times longer to figure out how to do it in Imagine. Once you've used LightWave, you'll wonder how you managed to get by with your previous system.

The user interface doesn't look very Amiga-like but that's no problem as most parts are laid out in a logical order. Some bits have been re-arranged since the last version though, which is bound to cause a little initial confusion for experienced LightWavers. For example, the Save/Load/Clear Scene gadget has moved to the Quit button, which has the advantage of allowing a scene to be saved from a Level 1 panel such as Record.

However, considering this is supposed to be a professional 24-bit rendering system, its support for retargetable graphics and specific graphics cards is awful. You can work around some of the display problems with the Cybergraphx system, but it's all far too sketchy considering the price and the target users.

LIGHTWAVE 5

A500 · A500+ · A600 · A1200 · A1500 · A2000 · A3000 · A4000

system requirements: 4Mb, Workbench 2 or higher, hard drive

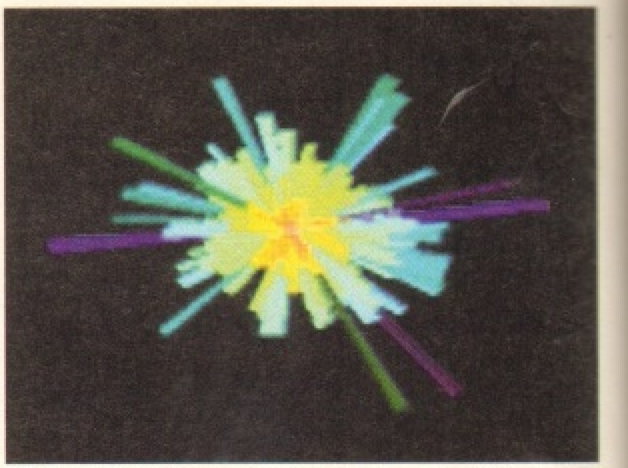
ease of use 93%
Generally very intuitive, but works best on a fast Amiga. Needs better RTG support.

performance 96%
We've all seen what it can do. Now it's got even more tricks up its sleeve.

value for money 80%
The price has risen since the last release, do it's more expensive now than ever. The upgrade price is more reasonable.

OVERALL
The aspirational 3D graphics package marches on. **94%**

MindEYE



■ Price: $275.00 (£170) ■ Developer: Geodesic Designs
✆ (001) 770 822 0566 Email: www.mindeye.com

Calling all video jockeys: this snazzy sound-to-light gizmo could be just the ticket for your next squat party.

Most of the bizarre, innovative products of the mid-80s faded into obscurity almost as soon as they arose. One, however, has hung on and has received new life. Geodesic Designs, a company based near Atlanta in the US, has revived their MindLight visual effects hardware and software, upgraded them, wrapped them in some wild holographic stickers, and re-christened them MindEYE. The first MindLight was a favourite of DJs and visual effects enthusiasts, and the MindEYE, with support for AGA colours and screenmodes, attempts to succeed it.

The MindEYE is a DJ's dream in a small plastic package. Hooked up to virtually any Amiga ever built, the MindEYE turns it into a video effects processor, the kind of thing that could cost a bomb. Since all Amigas are relatively easy to connect to TVs and other video displays, getting an Amiga with a MindEYE up on a big party screen is no problem.

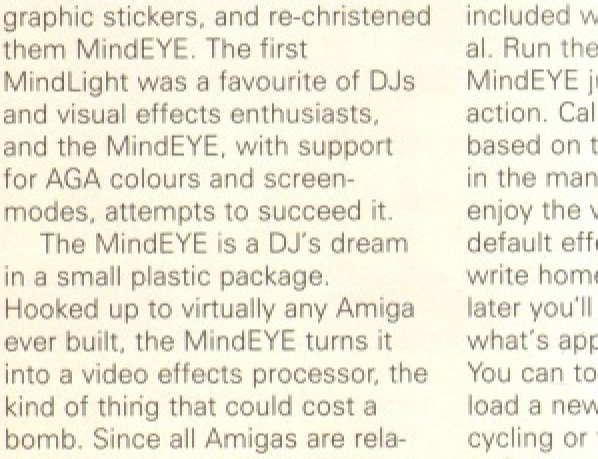
Pintsized video

The MindEYE is a little box not much bigger than a pack of cigarettes which plugs into the joystick port on any Amiga. The unit has two small knobs, a built-in microphone and a line level input in the form of a mini jack socket. Sound from either or both of these inputs is fed into the Amiga, where the software takes over and turns the changing frequencies and volumes into patterns on screen. Put in a favourite CD, plug in the MindEYE and you've got an instant video.

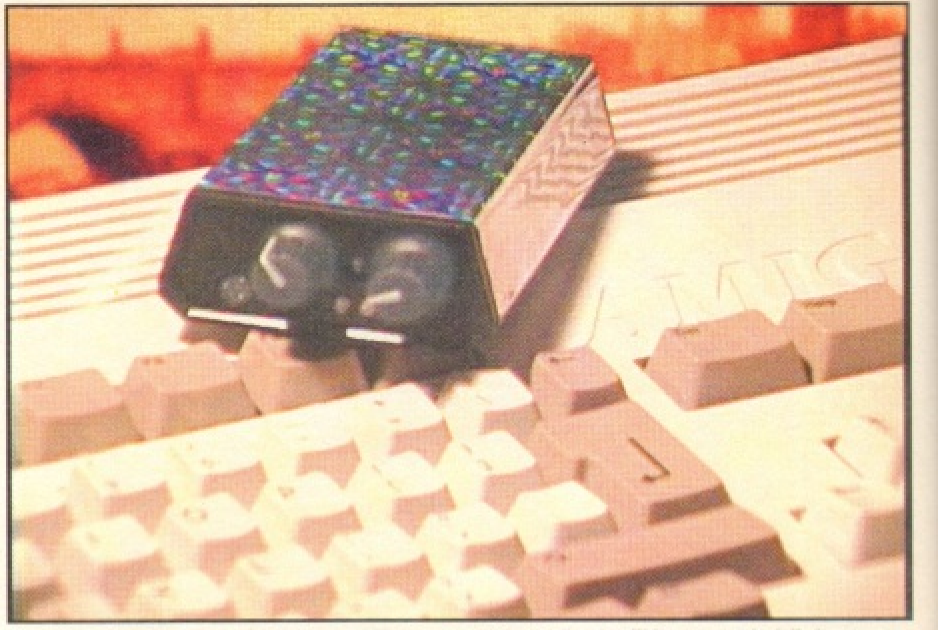
The MindEYE is a breeze to install, you just drag the software across from the single floppy disk included with the 61-page manual. Run the software and the MindEYE jumps immediately into action. Calibrate the two knobs based on the suggested positions in the manual and sit back and enjoy the view. However, the default effects are nothing to write home about, and sooner or later you'll want to have a say in what's appearing on the screen. You can toggle a new pattern, load a new image, set colour cycling or tweak the parameters to fine tune the graphics.

IFF Imports

The MindEYE software is capable of generating a whole host of effects through a variety of techniques. For starters, the software can draw from a predefined pool of IFF pictures and mix and fade between them at will. On top of these backdrops, or blackness if you prefer it that way, the MindEye will throw fractal-like objects, spinning polygons which leave brightly coloured trails as they dance to the music, or strange rapidly flashing boxes and lines. Geodesic provides a small set of pictures to get you in the mood and even a few support utilities. Polygons flash, fractals appear and disappear in the blink of an eye, subtle bass hints are shown as a star-shaped pattern on the screen ... if you're one of those people who has always been able to 'see' sounds in your own mind's eye, these strange patterns all seem to make perfect sense.



▲ In the past, sound-to-light converters have been rather tame. MindEYE on the other hand, is a bit of a crazy horse once it gets going.



▲ The beauty of MindEYE is that you can use it on any level, from a 'hands off' instant psychedelia box to an infinitely configurable interpretation of your soundtrack. Either way it's hugely entertaining.

Ch ch changes

You can change all kinds of aspects of the display as it runs, but it's best to use the keyboard for this, as selecting a menu option freezes the graphics. Almost every key has a specific function – usually at least two when used with the Shift key. That makes for dozens of types of visual effect to choose from, ranging from psychedelic triangles to beautiful snowflake-like patterns. You can set a program ahead of time and make changes on the fly without having to pause or exit the software. Also, you can lock out changes in case anybody else wants to get their grubby fingers on the computer.

The manual has a set of tutorials that should get you somewhat acquainted with the MindEYE, but a thorough reading or two of the full manual will be necessary if you're going to get the most from the system. In particular, the effects with the most potential for beauty, 'Kolai' and 'Mozai Visuals', have a number of parameters that can be altered to produce millions of variations, all very different.

Still screengrabs do not do the MindEYE much justice. It's the full effect of the MindEYE pulsing in time with the music, or seeming to respond to a voice, that makes it so visually appealing.

I see instant dance clubs. I see stunned friends at parties. It's as simple as hooking up to a video display and letting rip with the soundtrack of your choice. Like, wow Scooby! ■

Jason Compton

MINDEYE

A500 · A500+ · A600 · A1200 · A1500 · A2000 · A3000 · A4000

system requirements: Any 1Mb Amiga. Recommended: OS 2.1, 2Mb of RAM, 68020 and hard drive.

ease of use 73%
A minute to learn, a lifetime to spend twiddling and tweaking.

performance 95%
Basically a Video-Wall-In-A-Box. Does all those things the others never did.

value for money 80%
Well worth the price for pro and semi-pro VJs, but if you just want an executive toy then a lava lamp would be cheaper.

OVERALL
An essential tool for ever Amiga-owning video jockey.
86%

Epson Stylus Colour 600

AMIGA SUPERSTAR

■ **Price: £280.99** ■ **Supplier: Epson UK © 01442 611 44**

■ **For technical help contact LH Publishing © 01908 370230**

Check out Epson's latest printer, offering near photographic quality output at a good price. Interested? Find out more ...

When it comes to buying a printer, one of the safest things you can do is to get one from the big three; Hewlett-Packard, Canon or Epson. The ink-jet market is dominated by them and it would seem that Epson have their eyes on being number one with the release of a range of new printers which can produce a stunning 1440 by 720 dots per inch (dpi).

Fresh faced

The Stylus 600 is one of the first of the new models to be released in 1997. So, this printer is the first 1440 dpi machine I have been able to test with the Amiga and I'm delighted to say that it passed with flying colours.

To put the Stylus 600 through its paces, I used another new arrival on the Amiga – TurboPrint 5. Although this new printer driver package does not have specific printer drivers for the Stylus 600 the driver for the 500 model worked fine, although it didn't allow me to print at 1440 dpi. However, I expect this will come in time when the authors get the necessary information from Epson.

So what results did I get? The difference between printing at 720 dpi and 1440 dpi is minimal. I did, for example, print the same test image from a PC using the PC Stylus 600 driver's 1440 dpi mode and then compared that to the 720 output from TurboPrint 5 using the Stylus 500 driver.

Looking closer under a magnifying glass, there was a noticeable difference in the detail which you could see in light patches which, on most printers would completely disappear. This increase in resolution would be of most beneficial use to those who need to print images with lots of fine detail or very small images, again, containing lots of detail.



▲ Anyone looking for a printer that is both value for money and pure quality, need look no further than the Epson Stylus 600.

Plenty of choice

If you are looking to buy a colour printer and are not sure what your options are, then maybe we can help you make up your mind. For top quality, the Epson Stylus or the Canon BJC-620 are the best bets.

The Canon 620 is around £50 more (but comes with a free printer driver), is a 720 by 720 dpi printer and allows you to replace individual inks when they run out rather than all three like most other printers.

For budget priced printers, HP's DeskJet 690 and Canon BJC-4200 are very useful little models, as should be Epson's 720 by 720 dpi Stylus 400 when it's released. If you want something a little different, then maybe you should consider the Epson 1520 wide carriage printer, capable of printing up to A2 or if money's really tight, then take a look at the Epson Stylus 200, costing well under £200.

Also, if you want to do your own T-shirts Epson provide a A T-shirt Factory printing kit, costing around £15. This lets you create your own designs and place them on the fabric of your choice, whether that be a T-shirt or your favourite pillow case. Whoever said printing was boring didn't own an Amiga!

This ability to generate fine detail is most likeLy due to a new command in the printer. I was told in a press briefing that there is a command within the Stylus 600 that needs to be switched on by the printer driver. Unlike other printers which just simulate 1440 dpi this command should actually produce a smaller dot than would be produced at 720 dpi.

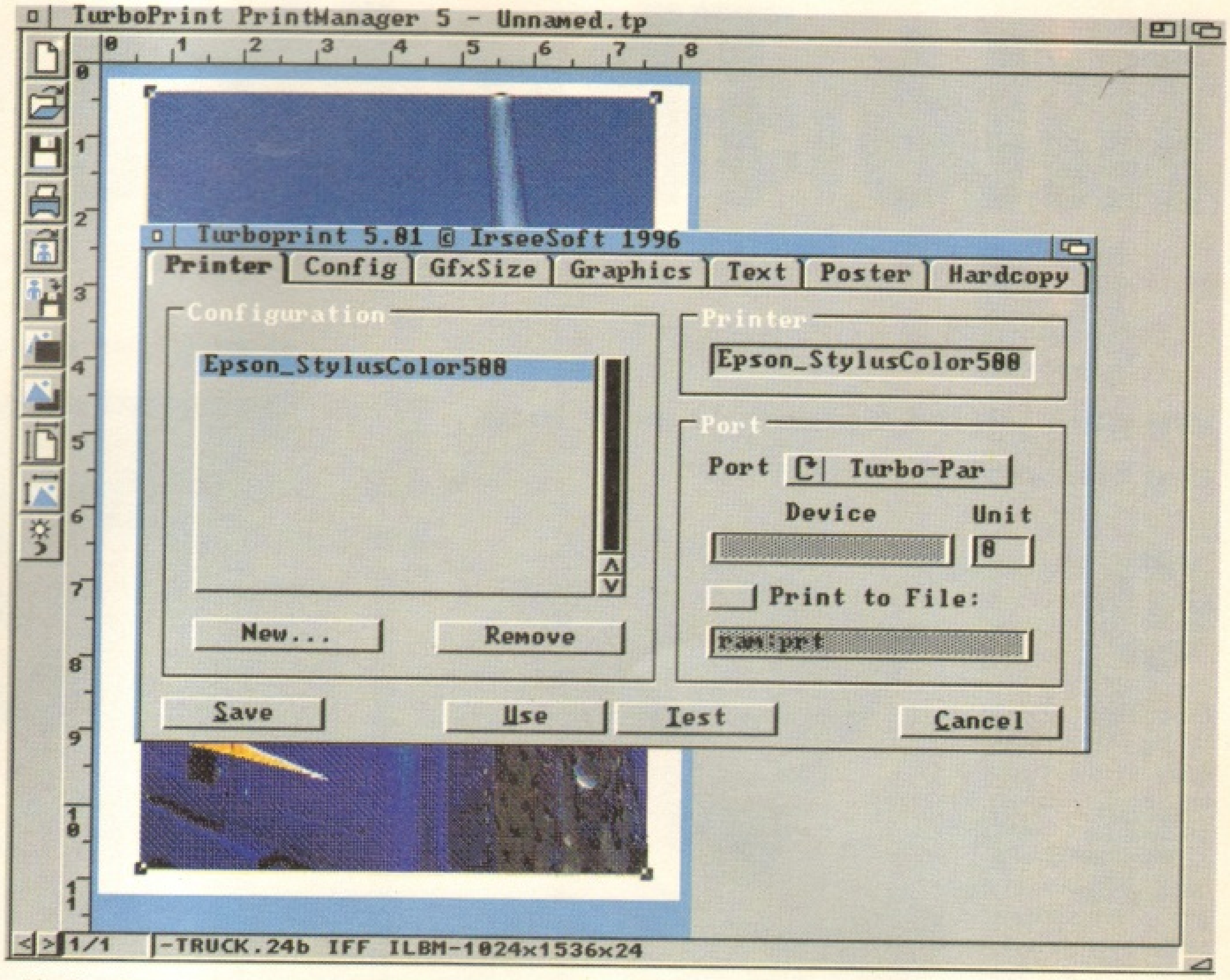
Shiny and new

The new Stylus 600 has many improvements over the 500, including the ability to produce smaller dots up to a third of the size of those produced by the 500, new inks which dry quicker (thereby restricting ink spread) and a new print head containing more nozzles to improve print speed.

Despite all this though, the quality of the prints from the Stylus 600 were not that much better than those from the 500, although to be fair to the Stylus 600, because the quality from the 500 is already excellent, any improvements are bound to be small and we haven't as yet seen a 1440 dpi driver on the Amiga which will help even more. Other improvements include lights to tell you when a coloured ink or the black ink has run out, as well as easier-to-use buttons for cleaning the print head and loading/ejecting the paper. Ports on the Stylus 600 include a parallel port for connection to an Amiga or PC as well as an Apple Talk port for attaching the Stylus 600 to a Macintosh.

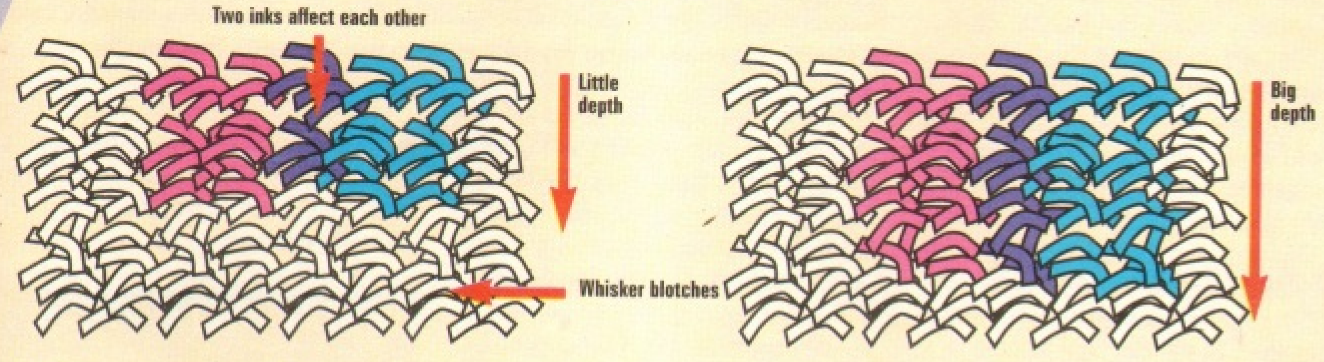
Overall, I have to hand it to Epson because the Stylus 600 is certainly an excellent printer but before you rush out and buy it, it's worth mentioning that there are a few other models in the range, such as the beefier Stylus 800 and the wide carriage model (Stylus 1520) that enables you to print up to A2 posters. The Stylus 400 is also worth keeping an eye out for as it's sure to impress when released. ■

Larry Hickmott

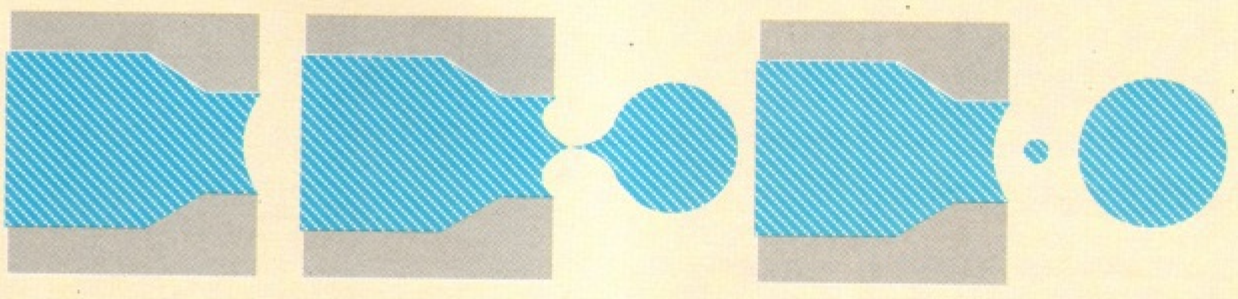


▲ To achieve photographic output from the Stylus 600, you'll need either TurboPrint 5 or Studio II Professional. Although no specific driver was available, the Stylus 500 worked fine.

A common problem with wet ink printers is that when the ink is placed on the paper, it spreads before it can dry. This leads to muddier colours and unsharp images. With the quick drying ink in the Stylus 600, the ink spread is reduced substantially.



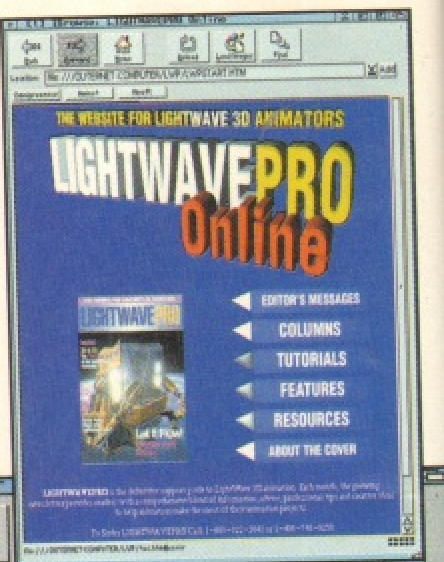
Using new technology, where the ink is pulled back and then pushed out of the nozzle, Epson have managed to increase the accuracy of dot placement and dot shape as well as reduce the size of the dot created, to produce higher resolution images.



EPSON STYLUS COLOUR 600

A500	**system requirements:** Any Amiga with an appropriate printer driver package. These generally require Workbench 2 or above.
A500+	
A600	**ease of use**.....................93% Providing you have a print enhancement package like TurboPrint, you can be up and running in next to no time.
A1200	**performance**...................88% High resolution output means lots of data and that means long print times. The faster your Amiga, the quicker you'll print a page.
A1500	
A2000	**value for money**.............95% Top stuff in terms of quality and value for money.
A3000	**OVERALL** It would be hard to find a better buy. **92%**
A4000	

Into The Net



■ Price: £14.99 ■ Developer: Weird Science ■ Supplier: Weird Science ✆ 0116 235 0045 ■ HTTP://www.weird science.co.uk

We give Weird Science's new Into the Net double-CD a surf.

AMIGA SUPERSTAR



Being an avid Net fan, I was more than keen to get my hands this CD which describes itself as 'containing all the tools required to access and explore the Internet with ease' on both the PC and Amiga.

The first CD of the double CD pack, does indeed contain Amiga and PC net software although sadly much of it is out of date (Miami 1.1, Voyager 1.0 etc) on the Amiga side. I was a bit disappointed by this as there's nothing like a good collection of net utilities. The online drawer on every CUCD has far better and more up to date software.

That said, however, there's enough software to get your Amiga on-line. Once on the Net, you can download newer versions of each of the packages. There's also enough material suiting web site creation to get going, GUI HTML helpers and some basic images that will be adequate to start with.

HTML crazy

So if Into the Net isn't pitched as a real Amiga Net software CD, what else does it have on offer? The first CD does have some nice Web site creation tools and some backgrounds and images too.

Weird Science have thankfully created an HTML interface for the CD so you may browse the contents from IBrowse and so on.

Unfortunately many of the images and links are broken. I know it's hard to process HTML pages to put on a local disk but if you're charging for the resources they should at least work.

As an image library, Into The Net isn't on the same planet as HiSoft's brilliant but pricey Web Explosion. However for £15 there's still a lot of excellent backdrops, patterns, buttons and other images which are great resources for creating your own pages.

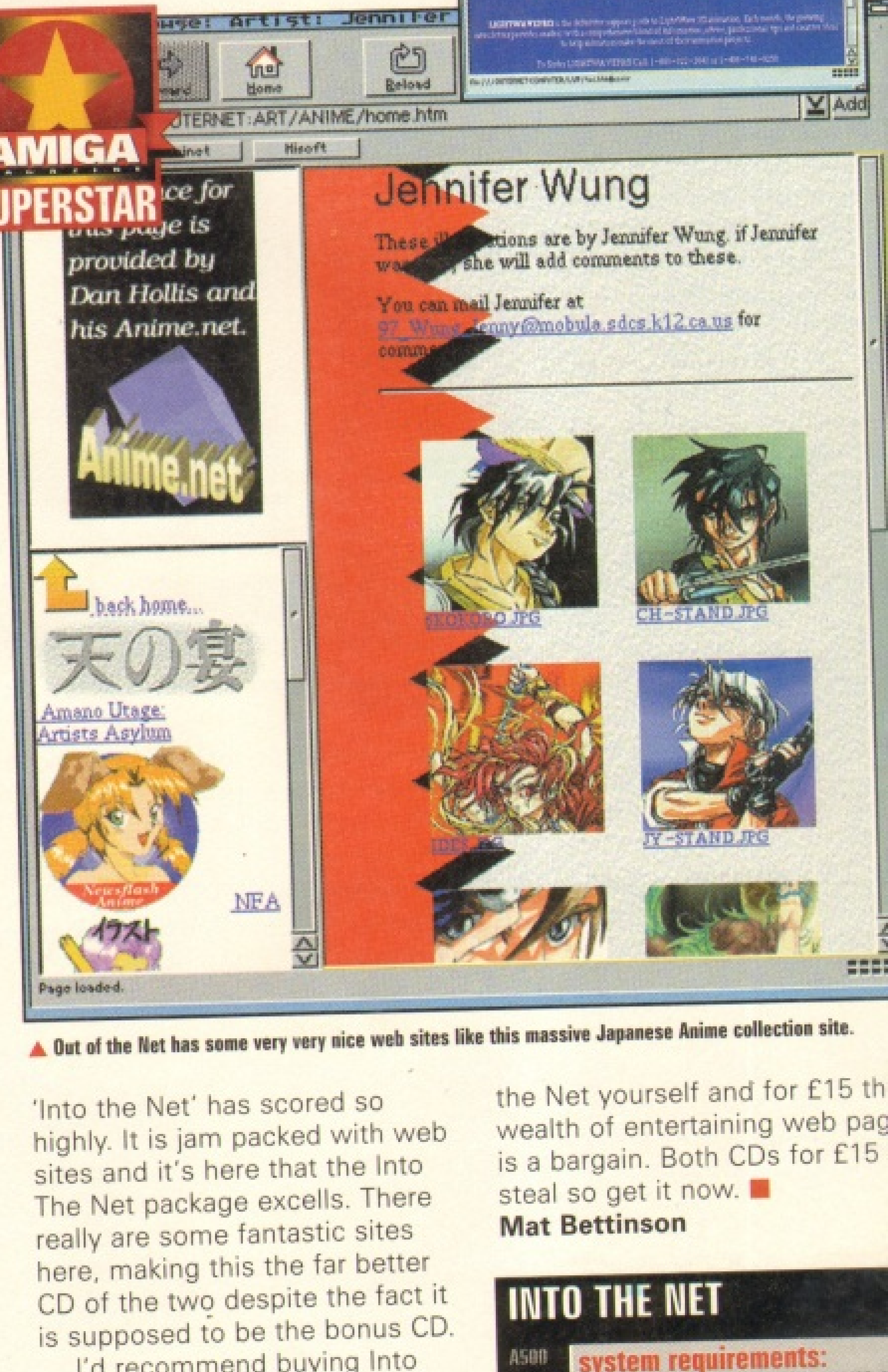
Second best

For me, the real bonus was the second CD called 'Out of the Net'. This CD is totally superb and is the underlying reason that 'Into the Net' has scored so highly. It is jam packed with web sites and it's here that the Into The Net package excells. There really are some fantastic sites here, making this the far better CD of the two despite the fact it is supposed to be the bonus CD.

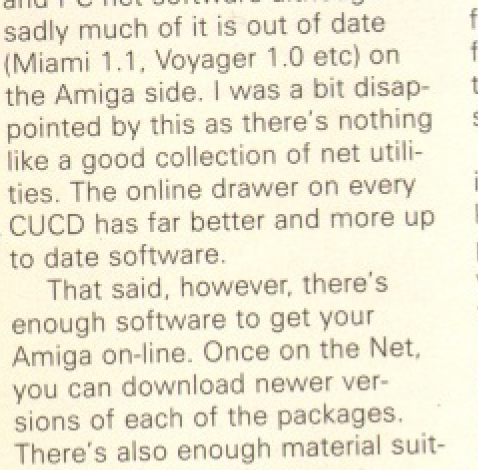
I'd recommend buying Into the Net if you want to browse the web at very high speed without ever placing a phone call or setting up Internet software beyond a simple web browser (which is included anyway). This CD will certainly show you what's on offer and its selection of sites is very highly commendable.

Out of the Net will help you decide if its worth getting on the Net yourself and for £15 th... wealth of entertaining web pag... is a bargain. Both CDs for £15 ... steal so get it now. ■

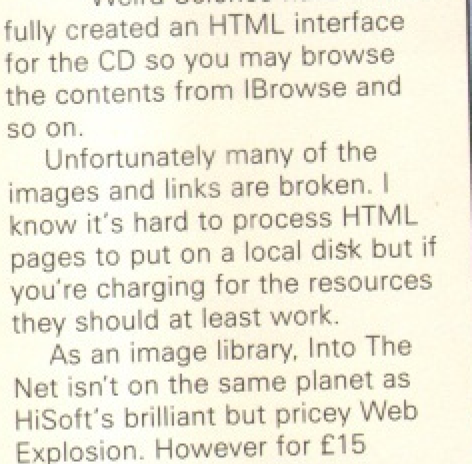
Mat Bettinson



▲ Out of the Net has some very very nice web sites like this massive Japanese Anime collection site.



▲ There are a few useful backgrounds and images on Into the Net to make your own web pages.



▲ Out of the Net has some really neat Web sites, here's the Natural History Museum's site.



INTO THE NET

A500 · A500+ · A600 · A1200 · A1500 · A2000 · A3000 · A4000

system requirements: Amigas with CD-ROM drive and KS 3...

ease of use 94
It's simple: anyone can drive a web browser.

performance 88
Broken links can be annoying but otherwise great.

value for money ....9...
Fifteen quid for this two CD set is che... very cheap.

OVERALL
An entertaining and cheap web resource. **91**

Pro Gen Plus Genlock

■ Price: £130 ■ Developer: Elsat ■ Distributor: Gordon Harwoods © 01773 836781

AMIGA MAGAZINE SUPERSTAR

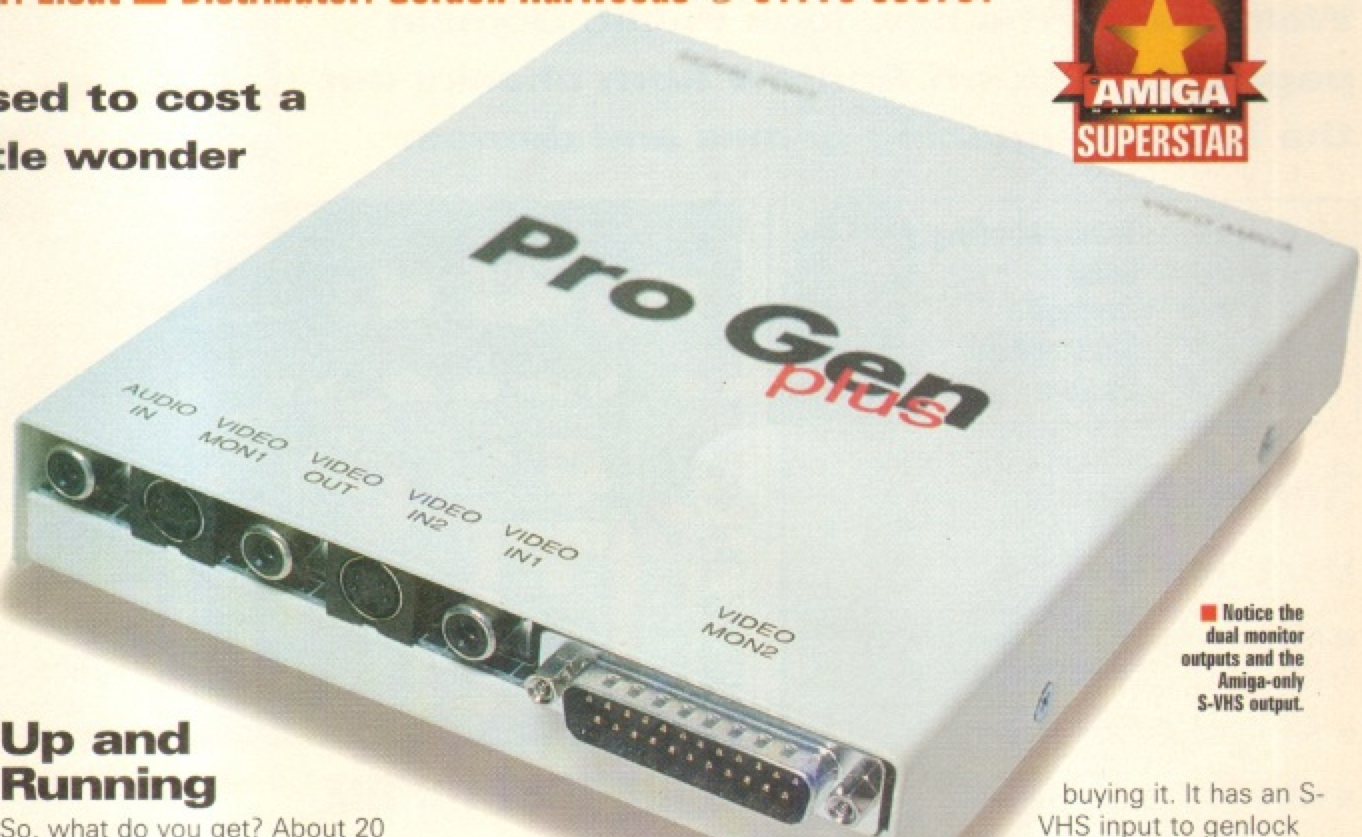
Quality genlocks used to cost a packet, but this little wonder is positively cheap!

It's no secret that the Amiga is well serviced with genlocks but there's always room for a better, cheaper alternative. This compact offering comes from those prolific developers Elsat, who have previously brought us the popular ProGrab digitisers and the CD32 ProModule expansion.

Their Pro Gen Plus is a smart looking little unit that offers S-VHS and composite video inputs, composite video master output, plus an RGB monitor output/ passthrough and an additional S-VHS monitor output. Plugging it in can be a bit tricky due to the very short cables that are supplied, although most genlocks have short cables to give the best possible picture quality. You need space for it around the 23 pin video connector of your Amiga.

There are no knobs or switches on the genlock itself. Instead it's all controlled from software via an RS232C from the Amiga's serial port. A different serial controller could be used instead, but this is a long term possibility.

The 'manual', an A4 sheet, has details on connections and a quick guide to using the software that comes with the hardware. More information would have been useful here to help out anyone less familiar with genlocking.



■ Notice the dual monitor outputs and the Amiga-only S-VHS output.

Up and Running

So, what do you get? About 20 preset wipes to cut between Amiga and video signals. These are beautifully smooth transitions and are a nice bonus. Just hit a function key combination to activate them.

All of these features are fine but the bottom line with all genlocks is the quality of the output video. On a good monitor you'll get a very good output quality. In fact you'll get good output regardless of what you're viewing the results on. So long as your sources are clean the end results will be amazingly sharp considering the price of the unit. The Pro Gen Plus uses digital technology where most genlocks use analogue circuitry. This means the colours are bang on, the sync is bang on, and I haven't seen a better quality picture from a genlock for less than £180. At this price, surely the Pro Gen Plus is an absolute steal?

Knobs are out

Although there's a lot to be said for the software-controlled approach, I don't like using the keyboard to execute the switches and wipes. I'd rather have external controls – knobs and sliders on the box itself would leave your Amiga free to run non-system compliant software for example. However, you still get seriously good picture quality for a reasonable price, a much more important consideration. True, the software can ignore what key you are pressing sometimes, and the manual needs filling up with the technical data on how to program the genlock's features through the RS232 port.

The only real addition I can suggest to the software is an ARexx port. This would allow people to set up complex video sequences in advance and video them back to tape in batches. I don't relish programming in ARexx (who does?) but it's the easiest option for all concerned.

People who have S-VHS equipment should try this out before buying it. It has an S-VHS input to genlock onto, but the S-VHS output is Amiga only. The mixed Amiga/video output is composite only, which will annoy purists and those people with video recorders that can only take 4 pin S-VHS input.

I would certainly recommend this genlock for home studio use. Using it for commercial applications should be fine, so long as the limiting quality of composite video output is okay, but I would recommend that you try it first if possible. It's a great little genlock that will suit many semi-pros ■

Pat McDonald

What is a Genlock?

genlock is an essential bit of kit for anyone who's serious about making video recordings or presentations from their Amiga. Put simply, a genlock acts as a special kind of mixer that combines your Amiga's graphics with a video signal. Rather than just fading the two together, the genlock overlays the graphics on top of the video, which shows through the transparent parts of the graphics. Some clever circuitry locks the two displays together and combines them into a stable image. All genlocks can do this, but they all differ in important areas such as picture quality, features, video connections, features and controls.If you are recording Amiga animations to video tape, a genlock will give better results than just using the Amiga's composite video output.

Pro Gen+

A500 / A500+ / A600 / A1200 / A1500 / A2000 / A3000 / A4000

system requirements: Any Amiga. Hard disk recommended.

ease of use 81%
No major problems here, but the manual could be more helpful with tips and advice for newcomers.

performance 97%
Great results; probably the best you could expect from a VHS-output genlock.

value for money 88%
No external controls, no AREXX port, just a wonderfully clear picture.

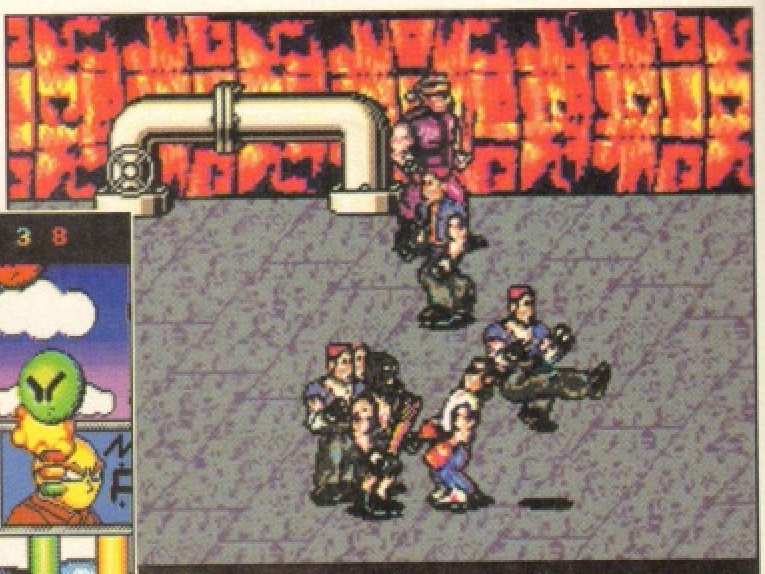
OVERALL
A great genlock that will take some beating at this price. **90%**

PD Scene

Welcome to the new look Public Domain pages. To kick off Andrew Korn checks out the latest happening games and demos.

★★★★★	Totally blinding
★★★★☆	Good
★★★☆☆	Average
★★☆☆☆	Substandard
★☆☆☆☆	Oh dear





Sorefist

Sorefist

Beat 'em up

■ **Available from:** F1 Licenseware, 31 Wellington Rd., Exeter, Devon EX2 9DU

■ **Tel:** 01392 493580

■ **Price:** £3.99 plus 75p P+P

Keep that thought to yourself. The name of this game refers to what you get if you punch things too much, which is exactly what happens in this homage to the greatgranddaddy of all scrolling beat 'em ups, Renegade.

Sorefist coincidentally came into the office at the same time as Vulcan's Strangers AGA, and comparisons are inevitable. Graphically Strangers AGA is smoother than this in an AGA sort of way, although in terms of animation things are a bit more even. The characters of Sorefist are stiffer, but they don't, as Deputy Editor Lisa puts it, "mince across the screen".

Sorefist involves walking around punching hordes of heavies. Once they are all floored, you get to duke it out with the level boss. If you love this sort of thing Strangers is the one for you. If, like me, you get bored too quickly with this type of thing, Sorefist is your man.

★★★☆☆



Conquest Remix



Nobotchi

Conquest Remix

God game

■ **Available from:** Classic Amiga PD, 11 Deansgate, Radcliffe, Manchester M26 2SH

■ **Tel:** 0161 7231638

■ **Price:** £1 plus 75p P+P per order

Conquest Remix? More like Mega-lo-mania remix. Just check out the screenshot (bottom left). You choose between Romans, Britons, Gauls and Hispanics to lead, each with its own Asterix style imagery and move them around from screen to screen within each level, developing armies and sending them out to conquer their foes. Each race has its own characteristics; the Spanish, for instance, are poor fighters who breed quickly, but as the author is Portuguese this seems like just a traditional insult.

The big problem with this game is quickly apparent – there isn't enough to do. There are only two types of building for you to erect, and none of the mining, resources and technological development that gave Mega-lo-mania its lasting appeal and depth. It's is purely a matter of balancing your manpower. Your success depends on your deployment of troops – make too many and population growth slows, make too few and you will be conquered. Spread your forces too thin and you are vulnerable, concentrate them and you expand to slowly. You get the idea.

David Serafim, the author, has produced what is an excellent game in the very short term. Graphics and presentation are excellent, game play is good, lastability is not so hot though. Great fun for an hour or two.

★★★★☆

Premier Sixes

The address given in the March issue for this footy game was wrong. The correct address is R. Mappin, 1 Holywell Cottage, Wentworth Road, Swinton, S.Yorks S64 8LA. I've no idea how the wrong address got in there instead but I blame the government.

Black Church

Gloomy music

■ **Available from:** Roberta Smith PD., 190 Falloden Way, Hampstead Garden Suburb London NW11 6JE

■ **Tel:** 0181 455 1626

■ **Price:** £1.50 plus 50p P+P



Black Church is a collection of mods by Ben Wright who, if he looks like his music sounds, has pallid features, black hair, a cape and fangs. And with names like Evil Empire, Misanthropy Inc., Sepulture and Eviscerator, you've got a pretty good idea what you are in for. There is no real front end to this disk collection. Although if you stick in the disk and boot from it

you will get a little introduction sequence, you won't get any music, you just get Medplayer. You have to call up the tracks yourself with the file requester and get them playing.

The music is gothic/hard rock, with lots of atmospheric rumbling, but is rather bland in terms of content. The production quality is not high; some of the samples that are used are far too muddy. All rather unengaging, but at least it's an alternative to the omnipresent techno and jungle sound tracks.

★★★★★

Iceburg
Arcade puzzler

■ **Available from:** Classic Amiga PD., 11 Deansgate, Radcliffe, Manchester M26 2SH

■ **Tel:** 0161 7231638

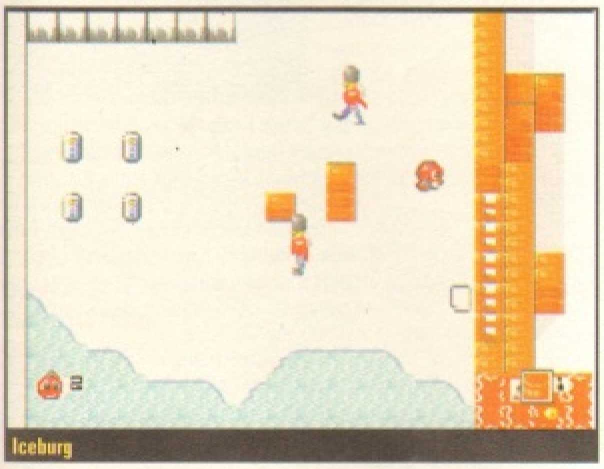
■ **Price:** £1 plus 75p P+P per order

There is something about this that reminds me of the 8-bit style of adventure game. No 3D perspective Tomb Raider special effects, no Syndicate perspective, no Another World polygons, just overhead, non scrolling, small sprite action in the vein of the old Ultimate games like Sabrewulf. Except, of course, that Ultimate never wrote games about tomatoes, which is what the central character in this game appears to be.

Iceburg conveys a sense of Christmas spirit; the tomato like main character is in fact a tree ornament in search of presents which are scattered around a snowbound landscape and guarded by clockwork toys. There are various pick ups you can use for negotiating your way through the landscape, such as ladders for climbing walls and torches for melting ice blocks, and all sort of weird obstacles to avoid.

The problem is that despite the oft-heard calls for the return of games of yesteryear, they often aren't as good as you remember them being, and this one captures that part of the spirit all too well. To say games have moved on since this format would be a bit of an understatement. Some genres are indeed timeless, but the one that involves walking around a 2D maze collecting things has had its day some time ago. You feel that it ought to be great, but it is, ultimately, unsatisfying.

★★★★★


Iceburg


Blasted

Nobochi
Scrolling blaster

■ **Available from:** Classic Amiga PD., 11 Deansgate, Radcliffe, Manchester M26 2SH

■ **Tel:** 0161 7231638

■ **Price:** £1 plus 75p P+P per order

I like a good horizontally scrolling blaster every now and again, I have since the days when Defender and Scramble were kings of the arcade. This one is a Reality Game Engine offering, and is very similar to the Seemore Doolittle games also produced with the same game creator. Is this all the Reality Game Engine can do, or are people just being unimaginative in its use?

I like my scrolling shooters to have spaceships which look like spaceships not bumper cars, but maybe I'm being unreasonable. If you liked the Seemore games, you'll like this one .

We should be taking a look at the Reality Game Engine very soon, so keep it here.

★★★★★

Blasted
Hubristic duckshoot

■ **Available from:** Classic Amiga PD., 11 Deansgate, Radcliffe, Manchester M26 2SH

■ **Tel:** 0161 7231638

■ **Price:** £1 plus 75p P+P per order

One of the characteristics of PD is that it just doesn't have the polish of a professional release. The programming may be brilliant, but usually you are looking at a single person effort, not something made by a team of programmers, artists and musicians the way most commercial games are these days. It seems to be quite common to download the latest game from the Aminet and sit watching its flashy title screens and intros, hoping that the game itself is going to be just as impressive, only be confonted by a total disaster.

Blasted manages to carry this slick presentation style through to the main game, even though it's just a simplified version of Space Invaders. The graphics are quite nicely done, there are all sorts of power-ups, and the whole thing has the feel of professionalism – to a degree anyway. Which all seems to have rather gone to waste, because after all it is just a duckshoot.

★★★★★

Witness Remix
Better scrolling blaster

■ **Available from:** Classic Amiga PD., 11 Deansgate, Radcliffe, Manchester M26 2SH

■ **Tel:** 0161 7231638

■ **Price:** £1 plus 75p P&P per order

Just as I was thinking how great horizontal scrolling blasters that have spaceships instead of balloons and clowns, along comes this little gem. An ancestor of Williams' original Defender, there is the scanner to show you where the enemy are, swarming spaceships and little landlubbing things of some description which the enemy try to abduct to the top of the screen where they are no doubt perform weird experiments on them.

Witness Remix is fast, furious, graphically very nice and enormous fun. The range of enemy ships is good; there are little insect like ships which are more bothersome than dangerous, slow, cumbersome space trucks which take a lot to kill them, and fast, dangerous butterfly like battlecruisers which are seriously nails. There are power-ups to give you the extra killing power you need to take these things on, but you need to kill fairly tough ships to get them, so you have to figure out the best order of battle to take you to victory.

This one is going on my hard drive so that in months to come, if the Public Domain offerings are a little poor, I can load this up, have a quick blast, and remember what PD is all about. Excellent.

★★★★★

Game of the Month



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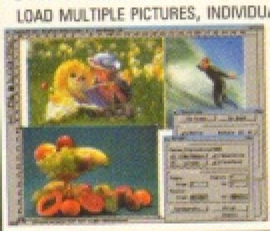
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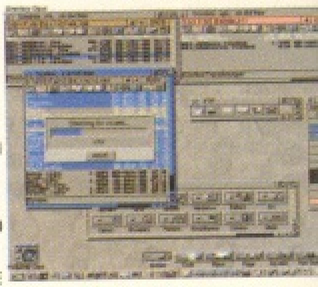
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◆ A FONT VIEWER ◆ LISTERS FIELDS FOR TITLES, RE-SORTING BY [...] PLUS A 'VERSION' FIELD ◆ COLOUR RE-MAPPING OF BUTTON/ICON [...] WITH SUPPORT FOR 'MAGIC WORKBENCH' ETC. ◆ SELECTIVELY [...] UNWANTED DRIVE ICONS ◆ CLIPBOARD SUPPORT FO[R] COPY AND PASTE IN GADGETS & LISTERS ◆ RE[...] ICONIFY, AND SCROLL BUSY LISTERS WHILE BUSY [...] AND LISTER SNAPSHOTS ARE STORED SEPARATEL[Y] WORKBENCH - SO YOU COULD SNAPSHOT YOUR CD [...] ICONS! ◆ LISTERS CAN NOW DISPLAY A BACKGROUND PICTURE/PATTERN ◆ INTERNAL OPUS CLI TO QUICKLY TEST COMMANDS & AREXX SCRIPTS ◆ MANY NEW INTERNAL COMMANDS AND MANY NEW AREXX COMMANDS HAVE BEEN ADDED OR EXTENDED WITH [...] FEATURES. YOU CAN NOW EVEN ADD YOU[R] INTERNAL COMMANDS!

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PD Utilities

Andrew Korn rates and reviews the latest smattering of useful utilities for your Amiga.

★★★★★	Totally blinding
★★★★☆	Good
★★★☆☆	Average
★★☆☆☆	Substandard
★☆☆☆☆	Oh dear



Ital 2.5

English-Italian Translator

■ **Available from:** Aminet/Util/Misc/Ital25a.lha

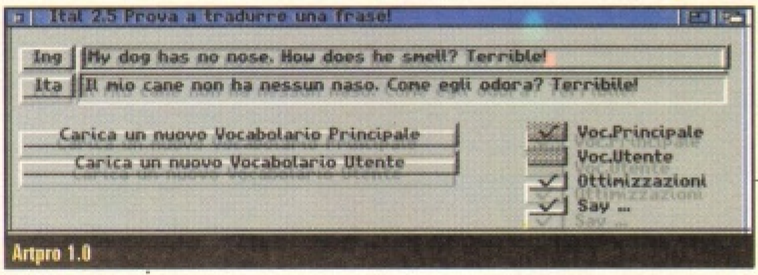
■ **Price:** N/a (343k)

"Nel mezzo del viaggio della nostra vita lo ho trovato me stesso in una foresta oscura ..." – Dante, translated from Italian to English by human, and back to Italian by computer. Cards on the table, I can read only just read enough Italian to get a vague idea of what is being said but compared to the translation software which returned the phrase "for better or worse", via the Japanese, as "to beat or decay" Ital 2.5 looks good to me.

Ital 2.5 is a pre-release demo version. It will develop into something more comprehensive in time, but right now it works and it's free. It conjugates, it's context sensitive, and it has a fair vocabulary.

It can translate on the fly or translate documents, has an ARexx port, and will even translate AmigaGuides. It does alas only translate one way. I guess the main use of it right now is to provide translations of your shareware docs.

★★★★☆



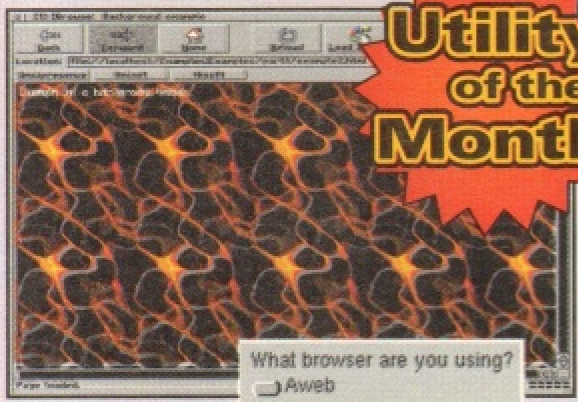
Artpro 1.0

First Steps With HTML

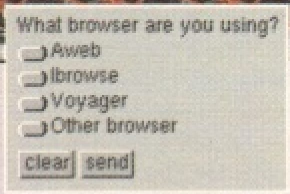
Tutorial

■ **Available from: F1 Software, 31 Wellington Rd, Exeter, Devon EX2 9DU. Tel: 01392 493580**

■ **Price: £6.99 plus 75p P+P.**



Utility of the Month



F1 licenseware are spreading their wings; this release is an F1 Gold release, their label for more commercial, more professional software. First Steps With HTML is a guidebook and an example disk tutorial which sets out to teach everyone from the out and out beginner upwards how to write HTML.

HTML (HyperText Mark-up Language) is the wave of the present as it is the mainstay of web page creation. HTML is a relatively straightforward scripting language for shaping and structuring web pages and it is within the grasp of any intelligent, moderately computer literate person to learn. If you followed the Wired World tutorials on this subject, you may well have learned everything this guide has to teach already. If you missed anything, or want a guide to HTML which is easier to get into, this is the one for you. The guide refers specifically to examples on the disk, so you can see exactly what does what, and the text is clearly presented in a step by step manner that leaves no stone unturned. If you find it easy, you'll skip through a lot, but if you find something you are having trouble with you'll find plenty of detail and examples to help you on your way.

You'll need a text editor of some type to write your HTML scripts with, and you'll need a web browser to look at the examples and try out your own, but these things are easily come by. Learning HTML couldn't really be more straightforward than this, although a chapter dealing with sourcing, production and preparation of images would be a good addition. As a bonus there is a collection of around a hundred high quality GIF bullet points, arrows, images and backdrops for use in your web pages. Excellent

★★★★★

Lockup 4.2

Hard disk security

■ **Available from:** Roberta Smith PD, 190 Falloden Way, Hampstead Garden Suburb, London NW11 6JE. Tel:0181 455 1626

■ **Price:** 90p plus 50p P+P.

I don't know, you public domain fanatics must be a right paranoid bunch, judging by the number of password utilities that I've seen. OK, so maybe you have some friends or family who you don't want messing with your hard drive, and maybe there are even one or two of you with files that you don't want the CIA getting their hands on. If so then Lockup V4.2 is the one for you.

There are three sections: boot up lock, workbench lock, multiple password. There's not a lot these various programs do differently to each other but this one scores high for presentation and ease of use.

Alas, any reasonably knowledgeable Amiga use, will quickly figure you can bypass the protection by booting with no start-up sequence, but that's true of all of these types of programs.

★★★★☆

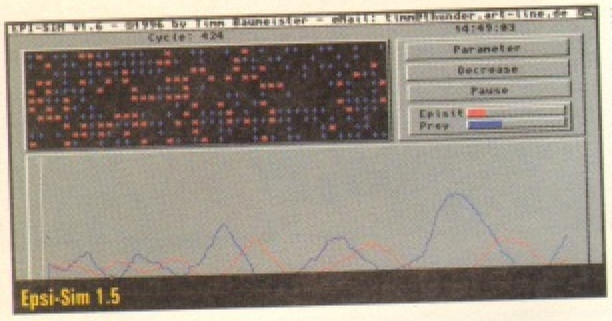
Artpro 1.0

Image processor

■ **Available from:** Classic Amiga PD, 11 Deansgate, Radcliffe, Manchester M26 2SH. Tel: 0161 7231638

Price: £1 plus 75p P+P per order.

This is a new entry into the image processing market, and one which is going to require work on its stability to compete with the best. Artpro is an image converter with datatypes support and some limited processing options, such as colour rebiasing and simple cropping. It has a good range of external loaders and savers, with support for RAW, sprites, BMP, even Animgif. It uses the excellent


Epsi-Sim 1.5

render.library for handling fast rendering of converted images in any image depth and works from a well designed intuition friendly GUI front end.

Artpro can be a little memory hungry, I suspect as a side product of the render.library, and is a little unstable, occasionally producing corrupt gifs and crashing the system. But it is fast and simple and could be a great package in the future.

★★★☆☆

Address Assist

Address database

■ **Available from:** Classic Amiga PD, 11 Deansgate, Radcliffe, Manchester M26 2SH. Tel: 0161 7231638

■ **Price:** £1 plus 75p P+P per order.

The readme file assures that this is not Yet Another Address Manager, which given the number knocking about it cannot avoid being, despite the fact that it is so fully featured.

Address Assist is an excellently presented MUI based address database with a load of useful features. It has user configurable data fields, powerful sorting filters, record linking, listview, bubble help, an ARexx interface, powerful printing facilities, the works.

What's really nice is the flexibility, with a user configurable input output format that allows you to import and export data to pretty much any spreadsheet, database or wordprocessor with a little fiddling, plus the option to link up a Casio SF series personal organiser using a serial connector available from the author.

If address databases get you excited, prepare a change of underwear.

★★★★☆

EpiSim 1.5

Biosystem simulator

■ **Available from:** Aminet/misc/sci/epi_sim.lha

■ **Price:** n/a (19k)

Apparently this is a simulation based on the laws of 1930's biomathematician Volterra, who according to the accompanying guide, "analysed the fluctuations of the population density of 'robber-prey' relations...". I think that means 'hunter-prey', but with the lawlessness of modern society, you never can tell.

EpiSim is a variant on the theme of the grandfather of all edutainment software, Life. A small graphical representation of red carnivores and blue herbivores (or food as they are sometimes known) pulsates with activity as the cycles change. In times of low carnivore populations, the herbivores flourish but the increased food supply means it's party time for all the carnivores, lowering the herbivore population until the depleted food supply can't support so many carnivores and they start to die out. And so it repeats for ever or until the populations become non viable. Bizarre in an educational/amusing sort of way.

★★★☆☆

MuiMore 1.1

Text reader

■ **Available from:** Aminet/text/show/DTC_M11.lha

■ **Price:** n/a (49k)

There are far too many text display utilities knocking around these days, each one offering its own small suite of extra features. Some take up less memory, some have good search facilities and so on.

The big problem with them all, however, is that not everyone has them, so the default tool of most readme files is More, the Workbench standard text viewer.

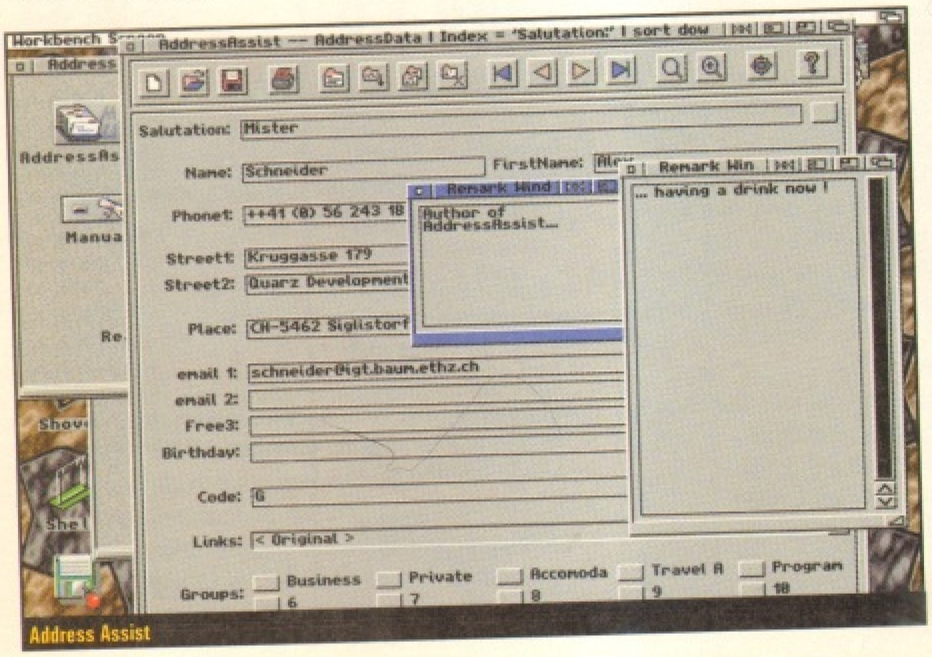
MuiMore has attempted to make a niche for itself in the power stakes. At 54k, the executable is considerably bigger than More and it requires MUI to operate. This is a program you would run from hard disk, using something like ToolAlias to redirect output to it.

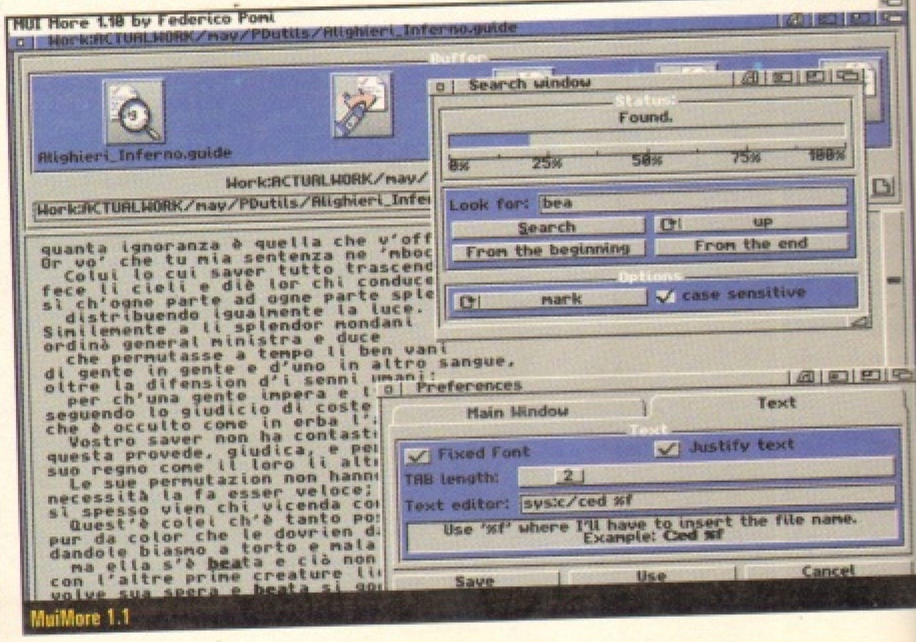
Luckily, MuiMore really has everything. For example, five documents can be loaded into separate caches, the search facilities are great, it has an AppIcon and it supports an external text editor. The only standard feature that it is missing is fast mouse controlled scrolling.

It's only a simple text viewer but we all need one of these, so it's good to see someone spend some time to knock out a decent one.

★★★★☆


Art Pro


Address Assist


MuiMore 1.1

CD-ROM Scene

The quality and quantity of stuff available on CDs is increasing all the time. Andrew Korn is here to testify to that.

★★★★★	Totally blinding
★★★★☆	Good
★★★☆☆	Average
★★☆☆☆	Substandard
★☆☆☆☆	Oh dear



Golden Demos

■ **Available from:** Weird Science, 1 Rowlandson Close, Leicester LE24 2SE

■ **Tel:**0116 234 0682

■ **Price:** £19.95 plus £1 P+P

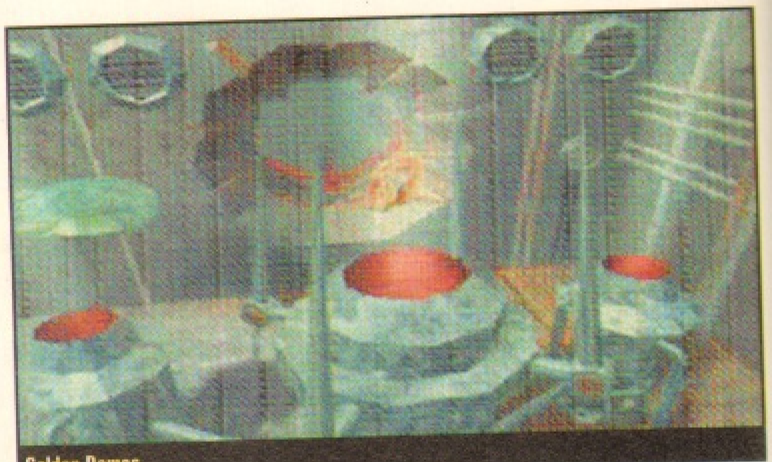
Now don't get me wrong, I'm a bit of a demo fan, but they do wind me up. Some people get bored of watching the 27th variation of a spinning, gouraud shaded, light sourced, semi transparent texture mapped shape, not me. I get bored of programs which blow out on any machine other than the one the programmers wrote it on. Going through a collection like this can be an exhausting experience if you have to reboot your machine after every second demo. At least with CD they are all there at your fingertips and load up nice and quickly, so it shouldn't be too much of a hassle. If only.

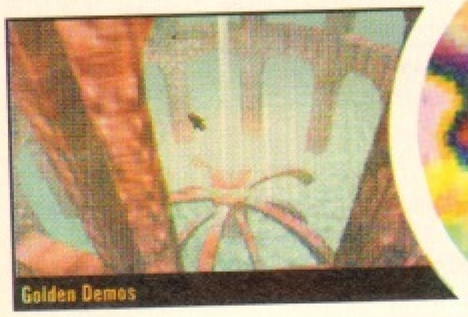
Perhaps I'm just too impatient, but I like things to be available from CD. I don't see why, when there are 650Mb to play with, you should bother putting all the information in an archive. The compilers of this CD do not seem to agree. The AmigaGuide front end lets you wander through the CD and search for demos, diskmags and slideshows, but only plays a tiny handful of them for you. Most of the rest must be unarchived, and in a lot of cases this means getting out your floppy disks. There are a lot of DMS files here. Not good news if you were hoping that this CD-ROM would save you time.

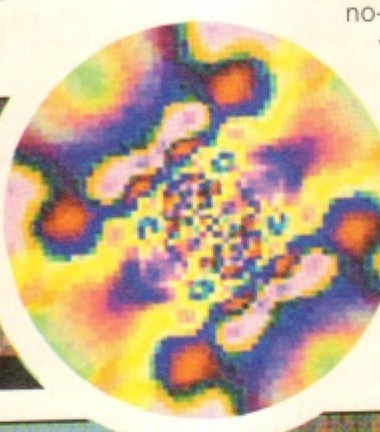
There are a fair number that will un-archive to RAM disk for immediate viewing if you like, and even one or two which will run straight from disc. There seem to be even more which just don't run. Click on the gadget and no-one's at home. One huge demo which should have been something of a showcase doesn't work because the script to run it has the name of some different CD in it, which suggests the compilers didn't actually try it out.

There is fun to be had with this CD, make no mistake. The one file directories, containing well over 100Mb of mini demos and intros run rather better than the rest, and there are some great little programs there, but overall this disc is just too much work. This is a pretty exhaustive collection for the completist, but there are many other CD-ROMs knocking about that do the job better.

★★★☆☆


Golden Demos


Golden Demos



ATP&TCP-CD volumes 1 and 2

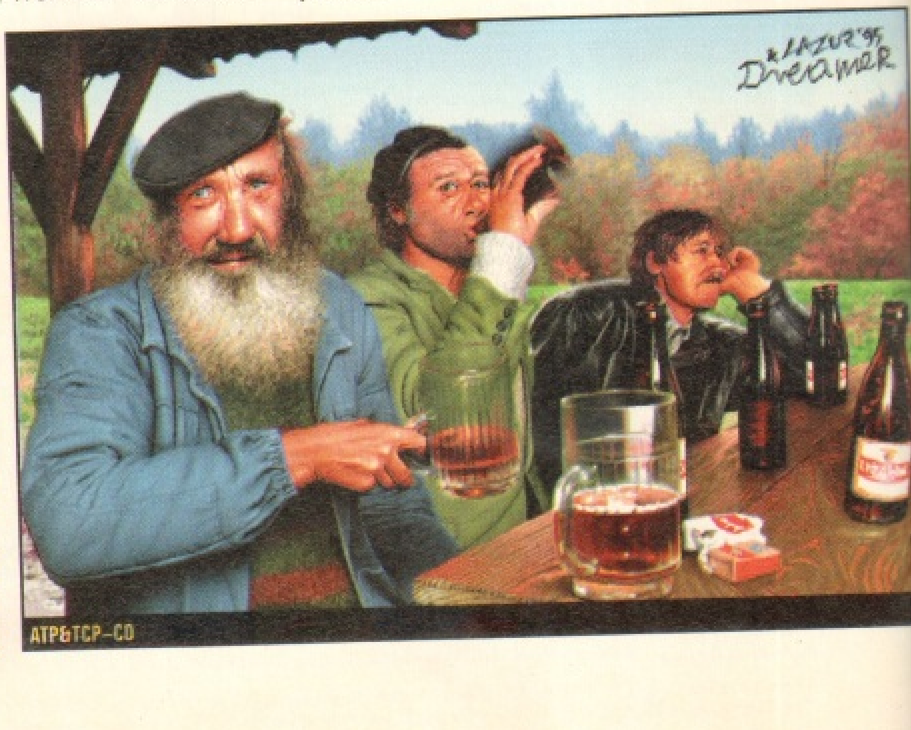
■ **Available from:** Epic, 43 Akers Way, Swindon, Wilts, SN2 2NF

■ **Tel:** 0500 131486

■ **Price:** £7.99 each. P&P £1 for one disk, £1.50 for two

Catchy name, that. Apparently it is the name of a computer club in Germany, who have put together a couple of CDs of their own. These fall into the category of software compilation discs, the first being an all purpose


Golden Demos


ATP&TCP–CD

Aminet 17

CD-ROM of the Month

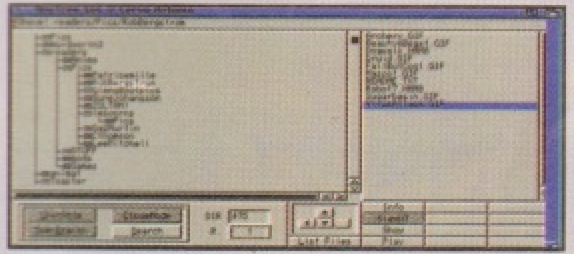
■ **Available from:** Weird Science, 1 Rowlandson Close, Leicester LE24 2SE

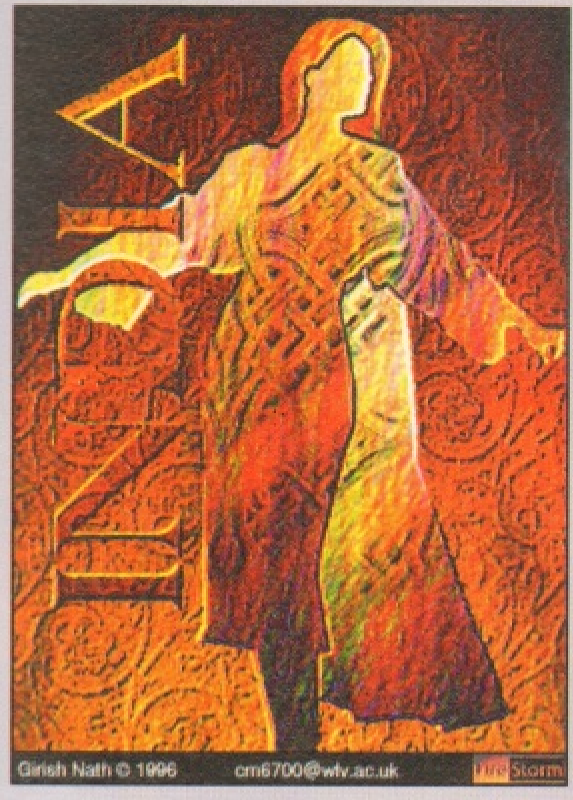
■ **Tel:**0116 234 0682

■ **Price:** £14.95 plus £1 P+P

The Amiga shareware scene is so productive that the Aminet CD compilations have already accelerated to volume 17. Aminet 17 alone has over 600Mb of new data, which is roughly 700 disks when archived, which is somewhere about 1200 floppy disks unarchived. Let's face it, for fifteen quid, the quality of the software would have to be extraordinarily poor for this not to be great value for money.

Aminet 17 is not the most exciting from a utilities front. The bonus commercial software (a CD with a cover disk?) is Personal Write, a word processor/text editor which was included in Cloanto's Personal Suite CD-ROM. It's very basic and occasionally annoying, but OK for simple jobs. More interesting software can be found amongst the Aminet upload archives. A few notables are Amitree, a really nice directory tree type utility which is a very good way of browsing through CDs, with configurable buttons for things like picture viewing and mod playing. Other items of note include Galaxy Creator which is whirlpool type galaxy image generator, and Wordmania, an invaluable program for the crossword junkie.





Where this particular collection really comes into its own though is for entertainment. The biggest section is the demos directory, closely followed by pix and mods – all in all there are 584Mb of assorted demos, music and images. There are a lot of demo party entries for you to check out (if you didn't entirely overdose on Party '96 after last month's CUCD) and they are a lot better implemented than in the Golden Demos CD reviewed on the opposite page, with a lot of them actually succeeding to run direct from the front end. Mnemonic by ephidrema2 particularly caught my eye – not so much on technical merit as for the excellent composition and visual sense behind it. Mod. Burebieli was this month's mod of choice, a popular Swiss nonsense song that had everyone in the office laughing, and India, by Girish Nath gets my vote for pic of the month. Another excellent compilation.

★★★★★

compilation which reminds me a little in style and content of our own cover disks, while volume 2 is a collection of pictures.

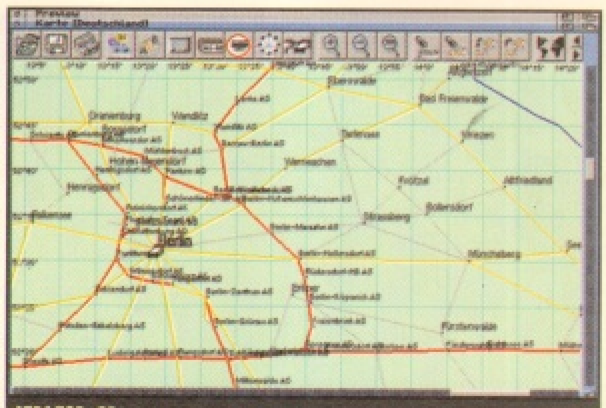
ATP&TCP disc one is very straightforward to use. There is a 'Klickme' icon which does a very similar job to the INITCD icon on our very own CUCDs, setting up various assigns and so forth to ensure software will run from the CD. You then browse through the disk via the Workbench, clicking on anything you want to activate.

OK, so the icons aren't as nice as the NewIcon set up we use, but the convenience of this kind of simple, Workbench friendly front end can't be overestimated.

If you want to browse through the disc with DOpus or whatever, then fine, but click to activate set ups give things that professional sheen. This one isn't quite as polished as ours but then we've had a few discs head - start on them.

Volume one is an eclectic mix. There are all the old faithfuls for a disc of this sort; loads of datatypes, utilities drawers filled with the usual suspects, MWB icons and so on.

There is also a decent range of software previews, a very healthy games section containing a large proportion of the better PD games of recent years along with some intriguing demos of unfinished or commercial releases, a small but well formed selection of demos and a fairly chunky selection of pictures and sound. If,



ATP&TCP–CD

you are short of something to read there is vast amounts of text, although non German readers will get little out of the NoCover and AmigaGadget disc magazines of which every issue is included.

On the other hand the CD-ROM guide, the guide to the OJ Simpson case, the complete lyrics of Pink Floyd and some Gutenberg project text including Alice in Wonderland are in English for a start. There's plenty to keep you going here.

Best of all is the PD tools section, which the compilers appear to have stuffed with every tool they could think of. There are just under 200 directories of utilities in here, which is pretty impressive, although splitting it into several directories would have been a good idea, as the 200 drawer icons eat up about 1.3Mb of chip ram just to open the window.

Volume 2 is a much simpler affair, full of click to view pictures, again very much the way we present pics on CUCDs. The quality is variable, as it would have to be with a collection this size, but it is a very good collection for anyone who wants a really big selection of Amiga art. The disc is split into three main directories, covering hand drawn work, digitised photographs and raytraces. Set up along the lines of disc 1 it has a basic Workbench to ensure every resource needed to run the software is available, but a rather large oversight on the part of the compilers left the Klickme icon trying to make assigns to the wrong disc. Fortunately the pictures are all set up with full paths in the tool types, which means that everything runs fine anyway. Phew.

It is good to see a computer club embark on a project like this. The relative affordability of CD-ROM writers these days makes it likely we will see a lot more like this in the future. If they are all of this standard, that's a fine thing indeed.

★★★★☆



Art Gallery

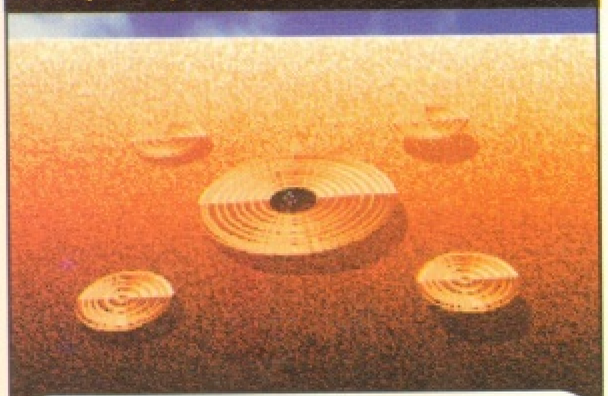
Take a look opposite at Picture of the Month for a great example of how to play to the strengths of a 3D rendering package.

Throw – By Zoltain E Hunt



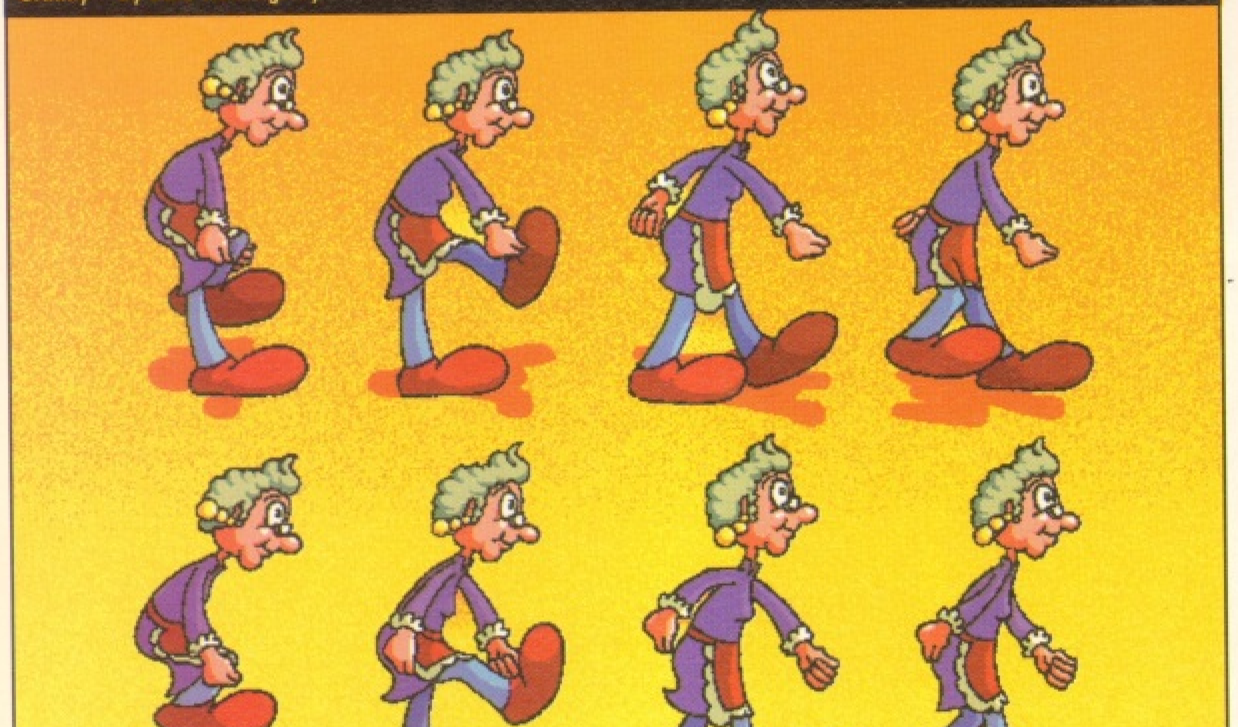
Amiga: A1200/030
Software: LightWave, ImageFX

Quintuplet – By Karl Indans



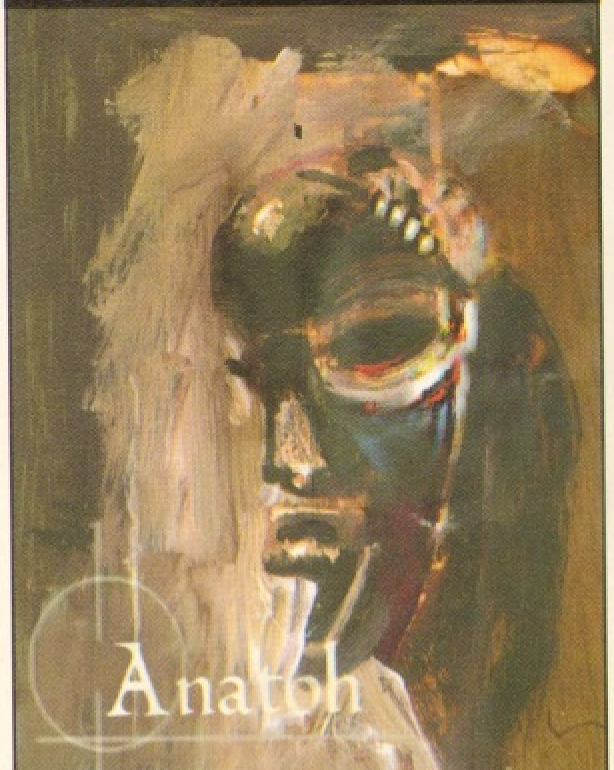
Amiga: A1200
Software: DPaint IV, PPaint 4 & 6.

Granny – By Dale Hemingway



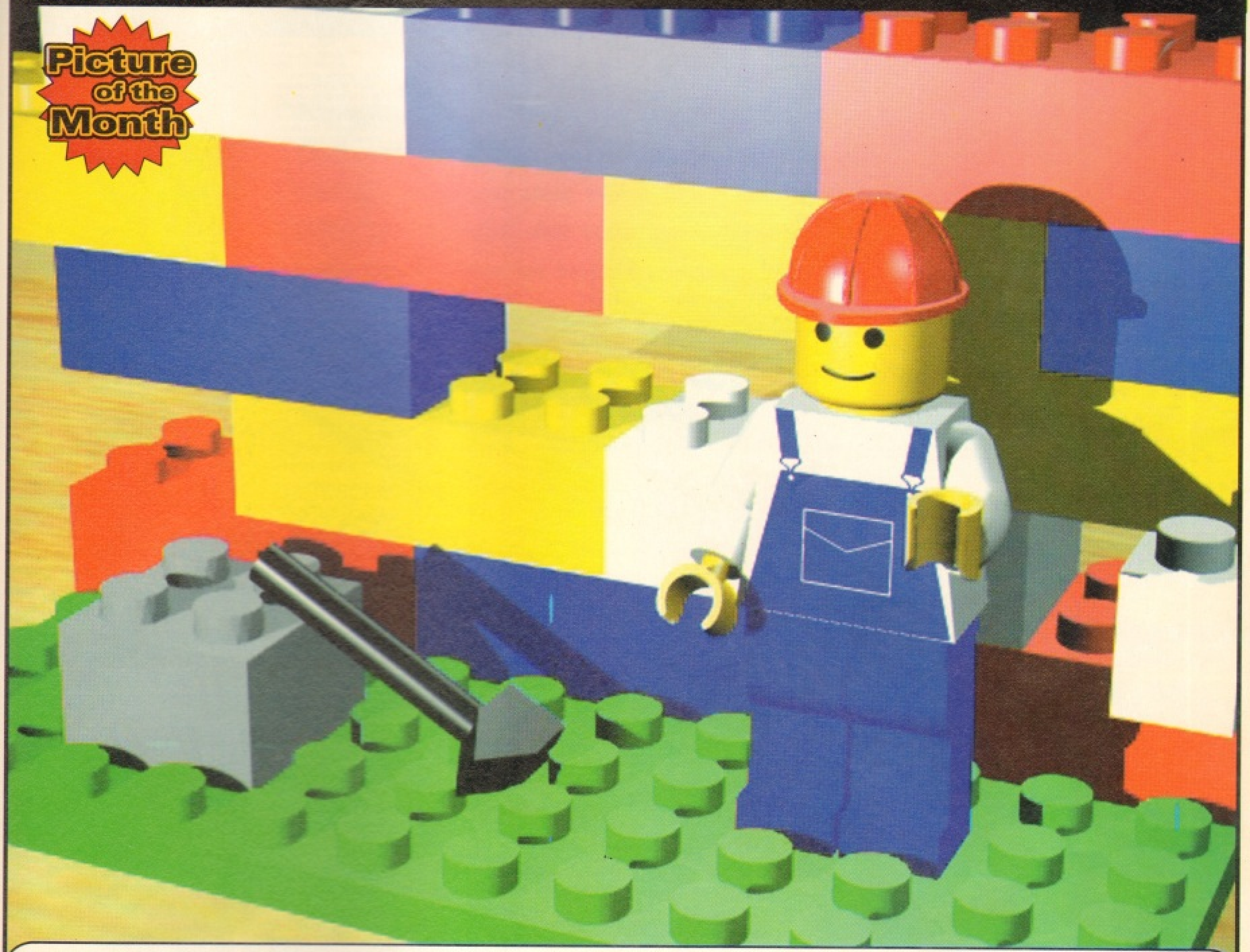
Amiga: A1200
Software: DPaint V, Brilliance 2

Anatoh – By Patrice Mille



Amiga: A1200 (oil painting scan)
Software: Photogenics

Lego – By Sune Johansson



Amiga: A1200
Software: Imagine 4.0

Bob – By C Thompson



Amiga: A1200
Software: DPaint V

Virus Attack – By Robert Bergstrom



Amiga: A1200
Software: DPaint V

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GLOOM DELUXE	7.99	------	------
G Gooch- WC Test Match	7.99	------	------
G Gooch-W Class Cricket	7.99	------	------
G Gooch - Battle for Ashes	4.99	------	------
Guardian	------	7.99	7.99
Gun Fury	14.99	------	------
Hard Nova	7.99	------	------
Heimdall	4.99	------	------
Heimdall 2	------	7.99	9.99
Helter Skelter	13.99	------	------
Hillsea Lido	12.99	------	------
Humans 3	------	------	10.99
IMPOSSIBLE MISSION 2025	8.99	------	8.99
Immortal	10.99	------	------
Indiana Jones Fate of Atlantis	8.99	------	------
Indianapolis 500	10.99	------	------
INTER BASE	7.99	------	------
INTER OFFICE	12.99	------	------
INTER SPREAD	7.99	------	------
INTER TALK	7.99	------	------
INTER WORLD	7.99	------	------
International Arcade Action	3.99	------	------
International One Day Cricket	4.99	------	------
International Sports Challenge	12.99	------	------
IntOS -AMOS	16.99	------	------
J Nicklaus Greatest 18 Holes	6.99	------	------
J Nicklaus Designer Clip Art	7.99	------	------
Jet Pilot	16.99	------	------
Jetstrike	------	------	9.99
Jigsaw Puzzlemania	3.99	------	------
Jimmy White's Snooker	12.99	------	------
John Madden Football	10.99	------	------
KGB	12.99	------	------
Kick Off 3	------	9.99	------
Kid Pix	10.99	------	------
Leeds United	3.99	------	------
Legends	------	8.99	8.99
Line of Fire	4.99	------	------
Lion King	------	19.99	------
Loopz	17.99	------	------
Lure Of The Temptress	12.99	------	------
Manyk Mayhem Compilation - *Legends, Fears, Roadkill*	------	14.99	------
Marvens Marvellous Adventures	------	4.99	------
MEDIEVAL WARRIORS	3.99	------	------
Minskies the Abduction	14.99	------	------
Morph	------	7.99	8.99
MULTI MEDIA EXPERIENCE	24.99	------	------
Napoleonics	7.99	------	------
Naughty Ones	3.99	------	12.99
NINE LIVES	3.99	------	------
Nippon Safes	8.99	------	------
Odyssey	9.99	------	------
One Day Cricket	8.99	------	------
On The Ball League Edition	------	8.99	------
Operation Combat 2	4.99	------	------
Pegasus	12.99	------	------
PGA European Tour	------	------	12.99
PGA Golf	8.99	------	------
PGA Golf Plus Courses	12.99	------	------
PGA Tour Golf	12.99	------	------
Pinball Dreams & Fantasies	12.99	------	------
Pinball Fantasies	------	12.99	12.99
Pinball Illusions	------	12.99	12.99
Pinball Mania	------	12.99	------
PINBALL PRELUDE	16.99	16.99	16.99
Pitfighter	6.99	------	------
PLAYER MAN 2 EXTRA	------	7.99	------
Popeye 2	7.99	------	------
Populous & Promised Lands	12.99	------	------
Populous 2	12.99	------	------
Power	7.99	------	------
PowerBase v3.5 (Database)	12.99	------	------
Powerdrive	9.99	9.99	------
Powergames	------	------	12.99
Powermonger & D/Disk	12.99	------	------
Premiere	4.99	------	12.99
Pro-Tennis Tour	6.99	------	------
Pushover	8.99	------	------
Railroad Tycoon	12.99	------	------
Reach for the Skies	12.99	------	------
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Risky Woods	10.99	------	------
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Road Rash	7.99	------	------
Rugby League Coach	3.99	------	------
Sensible World of Soccer 96/97	16.99	------	------
SWOS 96/97 DATA DISK	7.99	------	------
Shadow Warriors	6.99	------	------
Shuttle	12.99	------	------
Silent Service	8.99	------	------
SIMON THE SORCEROR 1	12.99	12.99	12.99
Skeleton Krew	------	7.99	------
SKIDMARKS	7.99	------	------
SLAMTILT	------	19.99	------
Sleepwalker	7.99	8.99	------
Soccer Team Manager	10.99	------	------
SPACE HULK	12.99	------	------
SPECIAL FORCES	8.99	------	------
Speedball 2	------	------	12.99
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Sporting Spectacular *Football Director 2, F1 GP Circuits, Rugby Coach, Daily Double Horse Racing, Euro Superleague*	14.99	------	------
Star Fighter	------	19.99	------
STARLORD	8.99	------	------
Stellar 7	12.99	------	------
Streetfighter 2	12.99	------	------
Strider	8.99	------	------
Strider 2	8.99	------	------
Strike Fleet	10.99	------	------
Strip Pot	------	7.99	7.99
Subversion	4.99	------	------
Super League Manager	7.99	7.99	7.99
Super Skidmarks	7.99	------	7.99
Super Streetfighter 2 Turbo	------	------	14.99
SUPER TENNIS CHAMP	7.99	------	------
SUPER TENNIS CHAMP 2 D/D	5.99	------	------
Supremacy	10.99	------	------
Syndicate	12.99	------	------
Test Match Cricket	4.99	------	------
The Games	10.99	------	------
Theatre of Death	9.99	------	------
THEME PARK	12.99	12.99	------
Timekeepers	12.99	------	------
Timekeepers Data Disk	5.99	------	------
Tiny Troops	17.99	------	------
Torvak	4.99	------	------
TOTAL FOOTBALL	12.99	------	------
Touring Car Challenge	12.99	------	------
Treble Champions 2	4.99	------	------
Troddlers	16.99	------	------
Turbo Pack 3	3.99	------	------
UFO	12.99	------	------
Ultimate Soccer Manager D/Disk	------	8.99	------
Valhalla 1 Lord of Infinity	14.99	------	------
Valhalla 2 Before the War	14.99	------	------
Valhalla 3 Fortress of Eve	17.99	------	------
Virtual Karting	------	12.99	------
Voyager	6.99	------	------
Watch Tower	------	12.99	------
Wembley International Soccer	------	4.99	7.99
Wembley Rugby League	7.99	------	------
White Death	4.99	------	------
Wing Commander	12.99	------	------
Wizkid	10.99	------	------
Wolfchild	4.99	------	------
Wonderdog	4.99	------	------
WORLD GOLF	12.99	------	------
World of Golf	8.99	------	------
World of Soccer	4.99	------	------
Worlds at War	4.99	------	------
WORMS	9.99	------	------
WORMS: THE DIRECTORS CUT	------	18.99	------
Wreckers	3.99	------	------
XP 8	16.99	------	------
ZEE WOLF 2 - WILD FIRE	22.99	------	------
Zool	------	------	8.99
Zool 2	------	8.99	------

EDUCATIONAL

Title	500	1200	32
10/10 Dinosaurs	12.99	------	------
10/10 Early Essentials (3-7)	12.99	------	------
10/10 English (6-16)	12.99	------	------
10/10 Essential Maths (5-12)	12.99	------	------
10/10 Essential Science (5-12)	12.99	------	------
10/10 French (6-16)	12.99	------	------
10/10 German (8-16)	12.99	------	------
10/10 Junior Essentials (5-11)	12.99	------	------
10/10 Maths Algebra (6-16)	12.99	------	------
10/10 Maths Geometry (6-16)	12.99	------	------
10/10 Maths Numbers (6-16)	12.99	------	------
10/10 Maths Statistics (6-16)	12.99	------	------
10/10 Spelling Puncuation	12.99	------	------
10/10 Structured Spelling	12.99	------	------
Kid Pix	10.99	------	------

JOYSTICKS & ACCESSORIES

AAR=ANALOG ADAPTER REQUIRED

Item	Price
4 Player Joystick Adapter	4.99
Analogue Joystick Adaptor	5.99
Automatic Joystick/Mouse Splitter	14.99
Competition Pro Xtra Clear Joystick	10.99
CH Flightstick (Analogue) (AAr)	29.99
Cruiser Joystick	7.99
Gravis Analog Joystick (AAR)	19.99
Internal 880K Floppy Drive A500	47.99
Internal 880K Floppy Drive A600/A1200	49.99
JUPITER JOYSTICK	7.99
Mouse 300 dpi 2 Button	10.99
Mouse 400 dpi 2 Button	14.99
Mouse 400 dpi 3 Button	16.99
Mousemat	1.99
Joystick/Mouse Extension Cable	6.99
Joystick Y Splitter	4.99
Logic 3 Delta Ray Autofire JY156	10.99
Logic 3 Alpha Ray - Autofire	10.99
Logic 3 Sigma Ray - Autofire	12.99
POWER SUPPLY UNIT	39.99
Quickjoy Pedals SV129	9.99
Screenbeat 3 Speakers SB203	12.99
Screenbeat 4 Speakers SB204	11.99
Screenbeat 5 Speakers SB205	11.99
Screenbeat 25 Speakers SB 225	21.99
Screenbeat Pro 50 Speakers SB250	32.99
Screenbeat RCA Adapter Cable	1.99
Screenbeat Power Supply	7.99
Thrustmaster XL Joystick (AAR)	27.99
Zipstick Super Pro Autofire Joystick	10.99

AMIGA CDROM

So Ho CDROM

Title	CD
AGA Experience II	9.99
Amiga Tools 3	24.99
Amiga Utilities 2	19.99
Aminet Set 1, 2,3,4,5,6,7,8,9,10,11,12 or 13	14.99
Aminet 14,15,16 or 17	14.99
Aminet 94-02	9.99
Amos Library	16.99
Animations	19.99
Arcade Classics Plus	12.99
Artwork Colour	9.99
Assasins Games	12.99
Assasins Games II	16.99
C-64 Sensations 2	9.99
Card Games	9.99
CD Boot (Run CD32 games on your A1200)	32.99
CD Write	32.99
Clip Art - Professional IFF & PCX Library 2	9.99
Epic Collection II	16.99
Epic Encyclopedia 97	28.99
Flash Rom	16.99
Fonts	9.99
FreshFonts 1 or 2	19.99
Gateway	9.99
Gif Sensations	16.99
Gifs Galore	9.99
Giga Graphics	24.99
Gold Fish 1 or 2	24.99
Graphics Sensation	14.99
Hottest 4	9.99
Hottest 6	14.99
Illusions in 3D	4.99
Into/Out of the Net	16.99
Magic Workbench Enhancement	9.99
Meeting Pearls 3	9.99
Multimedia Toolkit 2	24.99
Network CD2	14.99
Octamed 6	24.99
Professional Fonts & Clipart	9.99
Professional Utilities 1-1500	9.99
Scene Storms	16.99
Sci Fi Sensations II	16.99
Sound Library & GRX Library	19.99
Sound Studio	29.99
Sound Terrific I	9.99
Sound Terrific II	16.99
Speccy 97	16.99
Texture Portfolio	32.99
The Beauty f Chaos	9.99
The Colour Library	9.99
The Learning Curve	16.99
The Light Rom	32.99
The Light Rom 2	32.99
The Light Works	24.99
The Sound Library 1	9.99
The Sound Library 2	9.99
UPD Gold	24.99
UPD Set 1	16.99
Weird Science Animations	9.99
Weird Science Clipart	9.99
Weird Science Color Art	9.99
Weird Science Fonts	9.99
World of Clipart	9.99
World of Clipart Plus	16.99
World of Games	9.99
World of GIF	9.99
World of Photo	9.99
World of Sound	9.99
World of Video	9.99
Zoom II	9.99
Glamour Titles - Over 18 Only Amiga CDROM	
Adult 4 Animations	22.99
Adult Sensations	19.99
Adult Sensations 2	19.99
Adult Sensations in 3D	19.99
Asian Ladies 1	9.99
Asian Pleasures 2 or 3 or 4	29.99
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Digital Dreams II	12.99
Digital Dreams III	16.99
European Dream Girls 1 or 2 or 3	14.99
Fantasy Girls 1or 2	9.99
Girls of Pleasure	9.99
Girls Who Like Girls	9.99
Hot Pie	9.99
Hot Spot Women 1 or 2 or 3	15.99
Just 18	9.99
Lusty Lesbians 1 or 2	9.99
Oriental Fantasies 1 or 2	15.99
Photo Studio	15.99
Pixels of Desire	9.99
Sexy Sensations	19.99
The Page Three Collection	9.99
The World of Lana Fox	9.99
The World of Teresa May	9.99
Universe of Adult GIFS 1 or 2 or 3	9.99
Worlds Best Breasts	9.99
World Of Pinups Vol 1	9.99
World Of Pinups Vol 2	12.99

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10 @ 3.99 20 @ 6.50 50 @ 12.50 100 @ 22.50

PD & Shareware

BUSINESS

Title	Description	3.5
B018 Text Plus 2.2e	word processor	1.25
B019 Banking	home account program	1.25
B020 Label Designer	design your own labels	1.25
B021 Calv. 1.2	excellent data base program	1.25
B022 Desktop Publising	best pd dtp available	1.25
B023 Business Card Maker	-not AM1200	1.25
B024 600 Business Letters		1.25
B025 Business Card Maker	can print in colour	1.25
B026 Data Base Workshop	brilliant pack	2.50
B027 Spread sheet	easy to use spreadsheet	1.25
B028 Quick Base	very powerful database	1.25
B029 Rim Database	powerful database	1.25
B030 Amibase	professional II best database	1.25
B031 Textra	can edit several docs at once	1.25
B032 Flexi Base	easy to operate database	1.25
B033 Penny Wise	very powerful database	1.25
B034 Visicalc	great database lots of functions	1.25
B035 Text Engine V3.4	wordprocessor	1.25
B036 Little Office	d/base/wp/spreadsheet	1.25
B037 Home Business Journal	database	1.25
B038 Bon Appetit Database	many recepies	1.25
B039 Home Account	account program	1.25
B040 Amicash	regarded as best a/c's program	1.25
B041 Journal	full feature account program	1.25
B042 Loran Note Book	database & world map	1.25
B043 Data Base Compilation	best sell to date	1.25
B044 Mortgage Calc	calc repayment rate etc	1.25
B045 Money Program	accounts program	1.25
B046 Account Master V2.8	accounts program	1.25
B047 House Inventory	ideal for insurance	1.25
B048 Address Print v2.1	store/print addresses	1.25
B049 Text Plus V4.0	pro requires hd & 2megs	1.25
B050 Text Engines V4.1	word spellcheker	1.25
B051 Inventory 2	home contents for insurance	1.25
B052 Edword Professional	best wordprocessor	1.25
B053 Easycal +	massive spreadsheet	1.25
B054 Pay Advice Analizer	money program	1.25
B055 Address printing	print on labels	1.25
B056 Pay Advice V3	account program	1.25
B057 Label Maker	print lables, etc	1.25
B058 The Money Program	accounts	1.25
B059 Loans Account		1.25
B060 Onform	one of the best invoice makers	1.25
B061 Account Master V2.2	latest program	1.25

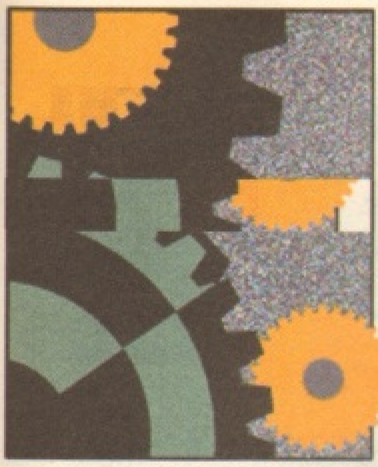
EDUCATIONAL

Title	Description	3.5
E019 Kid Paints	superb paint special for kids	1.25
E020 Colour It	brilliant computer colouring book	1.25
E021 Treasure Search	find the hidden treasure.	1.25
E022 Learn & Play1(not A1200)	maths & games	1.25
E023 Learn & Play2	education programmes	1.25
E024 Spanish Translator	spanish*english	1.25
E025 Mr Men (WB1.3only)	story adventure	1.25
E026 Astromy	tutorial on solar/star ect system	1.25
E027 Simon & Space Maths	maths games	1.25
E028 Dinosaurs	teach you all about dinosaur	1.25
E029 World Database	require (2+meg)	1.25
E030 Story Land2	interact puzzle games rec	1.25
E031 Language Tutor	teach you 4 languages	1.25
E032 Talking Colouring Book	talking dpaint brill	1.25
E033 Easy Spell2	improve your kid spelling	1.25
E034 Scrabble	require 2-4 player. brilliant	1.25
E035 Words	can help you solve the crossword	1.25
E037 Evolution	breed your own hybrid	1.25
E038 Iq Test + Iq games	pack 1 excellent	1.25
E039 Typing Tutor	very good typing tutor	1.25
E040 Chess Helper	help/teach how to play	1.25
E041 Basic Tutor	learn about amiga basic prog	1.25
E042 Amiga Tutorial 7	part tutorial	1.25
E043 Computer Care	how to care for amiga	1.25
E044 Guide To Lower Back Pain		1.25
E045 Kid Alphabet	display all alphabet letter	1.25
E046 Fraction & Silouest	maths & games	1.25
E047 Math Master	teach/test you on maths	1.25
E048 Steam Engine v2	graphic & tutorial	1.25
E049 Petrol Engine	tutorial & animate graphic	1.25
E050 Gas Turbine Engine	tutorial & graphic	1.25
E051 Stirling Engine	tutorial & anim graphic	1.25
E052 Dream for Angel	meaning of dream	1.25
E053 Invisible World	brilliant recommended	1.25
E054 Fish Tank	turn your amiga into a fish tank	1.25
E055 Demolition Mission	simple game for kid	1.25
E056 World Power	solve crossword puzzle	1.25
E057 Worm Hole	simple game ideal for children	1.25
E058 Apple Catcher	catch falling apple brilliant	1.25
E059 Cross Maze & Cryptoking2	kid games	1.25
E060 Verb Quiz	find the word & it related.brill	1.25
E061 King James Bible	complete bibles excel	4.99
E062 Tarrot	clairvoyant in a instance	1.25
E063 Gallow	fancy a game of hang man?	1.25
E064 Maths Drill	teach all basic math skill	1.25
E065 Error info	info why your amiga crash	1.25
E066 World-War2	graphics tutorial onWW2	1.25
E067 Science	excellent collection of science	4.99
E068 Kidprix	great children paint programme	1.25
E069 Astromy Pack		4.99
E070 Picture 7 Letter	learn to read first step	1.25
E071 Amiga Beginner Guide	tutorial on amigas	1.25
E072 Noddy Playtime	demo > very good	1.25
E073 Kid Pix	more excellent paint programmes	1.25
E074 D.T.P For Kid	easy to use, excellent	1.25
E075 Sing A Rhymes	sing a song	1.25
E076 Highway Code Tutor		1.25
E077 Read & Learn(2d)	three little pig story	1.25
E078 Back To Skool vol1		1.25
E080 Back To Skool vol2		1.25
E081 Back To School Vol3		1.25
E082 Little Traveler	information on wold wide	1.25
E083 World Geography	world with maps & text	1.25
E084 Discovery Of The Atom		2.50
E085 Desk Top Guide To Music	guide & tutorial	3.75
E085 Trumpty Firework Alphabet	alphabet	1.25
E086 How To Delovope Photo 1	excellent!	2.50
E087 Mr Men Olympics		2.50
E088 Cult TV Database	info on early tv series	2.50
E089 How To Devolope Photos 2		2.50
E090 Electronic Worlds	k james bibles	3.75
E091 How The Earth Began	theory on big-bang	1.25
E092 Workbench 2	tutorial on work bench 2	1.25
E093 Dino War	quiz on dinosaurs	1.25
E094 Junior Maths	great learning aid for maths	1.25
E095 Picture Puzzle	brillant jigsaw type game	1.25
E096 Word Factory	brillant, teach kids words	1.25
E097 Kid Disk	brillant education pack	1.25
E098 Kid Disk 2	more education programs	1.25
E099 Kid Disk 3	drawing program for kids	1.25
E100 Kid Disk 5 & 6	brillant games	1.25
E101 Jurassic Park6	lots of info on dinosaurs	1.25
E102 Childrens Songs 2	5 excellent songs	1.25
E103 Ming Shu (A500 only)	chinese astrology	1.25
E104 Astro 22 Pro V3	astrology program	1.25
E105 French Verb Tester		1.25
E106 World History Book	need help with history	1.25
E107 Little Travelier 2	information on the world	2.50
E108 X-Files Guide	to the tv series	1.25
E109 Chess Tutor	teach you how to play	1.25
E110 Internet	guide to the internet	1.25
E111 Cli & Shell Tutor	ideal for beginners	1.25
E112 Deluxe Paint Graphics Tutor v3&4		1.25
E113 Japanesent Graphics	teach japanese	1.25
E114 Paint It (not A500)	colouring book	1.25
E115 Key Board Trainer	an excellent tutor	1.25
E116 Word Power	crossword solver, teach	1.25
E117 Crossword Creator	design crosswords	1.25
E118 Chess 2 & Tutor	brillant chess 2 games	1.25
E119 History Of Aviation Vol 1	execllent disk	1.25
E120 Child Favourite	education program	1.25
E121 Animal Land	lear about animals	1.25
E122 Frantic Guide To Computer		2.50
E123 Cyber Punk 2	for cyber punk freaks only!	1.25
E124 Star Trek & NG Guide	pictures & info	7.50
E125 Siginture Creator	coustmise your own	1.25
E126 Virus Workshop V4	comprehensive guide	1.25
E127 Imagines Video	could you use it ?	2.50
E128 Workbench 2/3 Guide	on line help	1.25
E129 Learn & Play 3	education & games	1.25
E130 Barney Bear Goes Camping		2.50
E131 Comms Guide V1.1	beginner modem user	1.25
E132 Guide To Weather	guide to the weather	3.75
E133 Maths Attack	maths relate games for kids	1.25
E134 Beginning Typing Tutor		1.25
E135 Word Puzzle Pro	create or solve puzzle	1.25
E136 Kid Disk 7	education program	1.25
E137 Early learner(age3-5)	teach how to read	1.25
E139 UK Country		1.25
E140 Basic Electronic V1.5	for electronic fan	2.50
E141 Massive Guide to Internet	version 2.3	1.25
E142 Animal Land	ideal for kids	1.25
E143 Picture Maths	maths program for kids	1.25
E144 Beginer Guide to WB3	AM1200 only	1.25
E145 Globe Fact	fact about planet earth	2.50
E146 Kid Only	6 excellent games to play with	1.25
E147 Santa	help santa collect present games	1.25
E148 Birthday history V2.2		1.25
E149 Bar Tender	1000 drink/cocktail	1.25

GAMES

Title	Description	3.5
G060 Mega 21 Games	amazing 21 games	1.25
G061 Dragon Cave	brillant 3D puzzle games	1.25
G064 Take Them Out	like to operation wolf	1.25
G065 Destine Moon Base	arcade conversion	1.25
G066 Tank Battle	player tank battle game	1.25
G067 Arcadia	the best arknoid clone	1.25
G068 Q-Boid	cross tetris and invaders	1.25
G069 Dimension X 2	player light cycle game	1.25
G070 Nebular	excellent shoot em up	1.25
G071 Galatic	excellent8 levels arcade	1.25
G072 Hyper-Ball	speed ball + level editor	1.25
G073 Ghost Ship	very good 3d adventure	1.25
G074 Battlement	hunch back of notcha	1.25
G075 Mega Game Collections III	3 top game	1.25
G076 Madonna Nude Puzzles	for 18+ only	1.25
G077 Gravity	massive space exploring game	1.25
G078 Cyber-Netic	brillant 8 way blaster	1.25
G079 Donkey Kong	A1200	1.25
G080 Crazy Sue II	best platfor to date	1.25
G081 Super Skoda Challenge	(& track editor)	1.25
G082 Star Trek	similar to raid 2 but harder	1.25
G083 Doody	very cute & extremely addict	1.25
G084 Wonder Land	amazing graphic	1.25
G085 Deluxe Pacman	best ever release	1.25
G086 Card Games Collection		1.25
G087 Wizard Domains	dungeon type games	1.25
G088 Kalatriz (not A1200)	arcade tetris clone	1.25
G089 Air Aces II	very playable shoot them up	1.25
G090 Othello	best pd version	1.25
G091 Mouse Impossible	very addictive puzzle	1.25
G092 Tetren	most polish ever release	1.25
G093 Strikeball	brilliant base ball clone	1.25
G094 Trailblazer (not A1200)	brillant	1.25
G095 Fighting Warrior	like street fighter	1.25
G096 Dominoes	only one of it kind on pd	1.25
G097 Total Wars	strategy like chess in space	1.25
G098 Battle Car 2	3D car reacing	1.25
G099 Nester Card Game	hours of fun for a quit	1.25
G100 Roulete	american roulete excellent	1.25
G101 Trailblazer 2	C64 conversion	1.25
G102 E-Type 2	very good asteroid	1.25
G103 Olempiad	olympic sports events	2.50
G104 Descender Game	tank,search	1.25
G105 Oblidox	excellent arcade/puzzle game	1.25
G106 Parachute Joust	quite playable	1.25
G107 Castle of Doom	vg graphic adventure	1.25
G108 Wibble World Giddy	large platform game	1.25
G109 Cash Fruit	good fruit machine	1.25
G110 Amos Cricket	cricket games	1.25
G111 Extream Violence	2 player battle out	1.25
G112 Enigma Machine	very challenging puzzle	1.25
G113 Mega Ball 2	break out clone	1.25
G114 Bounce & Blast	brilliant platform 10/10	1.25
G115 Zombies & Defender	2 fantastic games	1.25
G116 Mercaneries Simulation 3D	wars games	1.25
G117 Life	simulation very interesting	1.25
G118 Transplant	dozen of level fast arcade	1.25
G119 Klawz the Kat	great platform games	1.25
G120 Highway Hell	like spy hunter on the c64	1.25
G121 Operatikn Firestorms	brilliant	1.25
G122 Castle Kumquat	similar to alien breed	1.25
G123 Black Dawn	brilliant graphic adventure	1.25
G124 Moria 5.4	the latest dungeon & dragon	1.25
G125 Bridge	good version of bridges	1.25
G126 Ork Attack	bloody adventure	1.25
G127 Rebounce 2	player futuristic break out	1.25
G128 Road to Hell	brilliant car racing	1.25
G129 Supertom Cat	new vertical shoot em up	1.25
G130 Kungfu Charlies	mix with platform brilliant	1.25
G131 Raid 4	latest vertical scroll shoot em up	1.25
G132 Quizmaster	very good quiz program	1.25
G133 Elevation	games base on lift ??	1.25
G134 Imperial Walker	base on star wars games	1.25
G135 Starbase 13	like monkey island	2.50
G136 Amos Loadsa Money	best fruit machines	1.25
G137 Mr Men Olympic	many event to complete	2.50
G138 4 L.C.D Dream 4	small hand held games	1.25
G139 Neighbour Games	base on the tv series	2.50
G140 Time Runner (WB2/3)	brilliant graphic	1.25
G141 Golf	one of the first and descent golf	2.50
G142 Amos Cricket 2	amos cricket simulator	1.25
G143 Mugsy Revenge	gangster graphic adv	1.25
G144 Jiasaw	very playable jigsaw games	2.50
G145 Bobby Garden + Digger	brilliant	1.25
G146 High Octane	fast car reacing (notwb1.3)	1.25
G147 Time Runner	amazing graphic adventure	1.25
G148 Space Invasion 2	fantastic galaxian	1.25
G149 Automobiles	pd version of skidmarks	1.25
G150 Bandit Mania	briliant fruit machine demo	1.25
G151 Project Buzz Bar	brillianr asteroid	1.25
G152 Gun Fight (not A500)		1.25
G153 The Real Popeye 64	a500 1.3 only	1.25
G154 System Defend	brillaitn defender system	1.25
G155 Amiga Boy	game boy emulator +tetris	1.25
G156 Dethell in Space	recommanded	1.25
G157 Overlander	brilliant arcade moon alert	1.25
G158 Serious Backgammon	the best in pd bg	1.25
G159 Star Woid	brilliant thrust	2.50
G160 Un-Sensible Soccer	similar to sensi	1.25
G161 Fruit Mania	brilliant fruit machine	1.25
G162 Trickle Treat	like doom on the pc	1.25
G163 Football Manager	new version	1.25
G164 Solo Assault 3D	like wing commander	1.25
G165 Seed of Darkness	graphic adventure	1.25
G166 Nano Fly	superb explore game	1.25
G167 The Great Gold Raid	very addicted	1.25
G168 Ant War V1.9	not 1.3	1.25
G169 Zeno Morph	great graphic	1.25
G170 Task Force	mind shadow clone	1.25
G171 Green Five	amazing 3d graphic like	1.25
G172 Professional Bingo Caller		1.25
G173 Martial Sprit	like street fighter 2	1.25
G174 6 Excellent Card Games	collection	1.25
G175 Blitz 2	fast action shooting games	1.25
G176 Exit 13	brilliant puzzle	1.25
G177 Temporal Misplacement	graphic adv	1.25
G178 A Day at the Races	horse racing games	1.25
G179 Boulder Original	with 80 levels	1.25
G180 Bouldergash	cave/level construction kit	1.25
G181 Boulder Collection 2/3	160 levels	2.50
G182 Boulder Pack	with 670 levels on 8 discs	7.99
G183 Alien Net Work	new spacing invader	1.25
G184 Battle Force	excellent text adventure	1.25
G185 Gnu Chess	the best chess with 10 levels	1.25
G186 Sword Of Yigg	graphic adventure	1.25
G187 Power Tetris	for 1 or 2 player	1.25
G188 Super Smashing Tetris		1.25
G189 Chess II & Checker		1.25
G190 Gravity Force 2	1 or 2 player thrust clone	1.25
G191 Schnebitz	puzzle games	1.25
G192 Delexe Gala v2.3	2 player	1.25
G193 The Krillian Incindent	like elite2/epic	1.25
G194 Quantum	maze collect & escape type	1.25
G195 Rag to Riches	like monopoly	1.25
G196 Wipe Out	mindless blasting games	1.25
G197 Godzilla	another shoot em up	1.25
G198 Super Mega Fruit	all new fruit machine	1.25
G199 Driving Maniac 3D	car racing very fast	1.25
G200 Planet Fall	luner lander clone	1.25
G201 Buck Tooth Adventure		1.25
G202 Pengo 2	maze type games	1.25
G203 Super Obliteration	similar to pang 2	1.25
G204 Super Invasion II	new spacing invader	1.25
G205 The Sheperd	brilliant populous closne	1.25
G206 Alien Genocide	shoot aliens set in space	2.50
G207 Puckman	pacman	1.25
G208 Super Battle Zone 3D	not wb1.3	1.25
G209 M*A*S*H	similar to lemming and worms	1.25
G210 Last Soldier	multilevel platform games	2.50
G211 Cbbertech	excellent alien breed clone	2.50
G212 Hangman	anyone for a game?	1.25
G213 Ace Space	nice platform game	1.25
G214 Coloumania	puzzle game	1.25
G215 Harry Haddock	brilliant platform games	1.25
G216 Mangle Fender	smash upcar/tank etc	1.25
G217 Arcade Games Classic V1&2		2.50
G218 Helicopter	play like desert strike	1.25
G219 Cow Wars	very addicted 2 player games	1.25
G220 Island	play like monopoly	1.25
G222 Lottery Professional	this version use	1.25
G223 Monopoly	board games-the best version	1.25
G224 Jet Willy 3	excellent platform games	1.25
G225 Flamming Engine	superb car racing	1.25
G226 Power Machines	graphicaly brilliant shoot	1.25
G227 Suicide Machine	operation wolf style	1.25
G228 Zaxxon 3D	superb c64 3D blaster games	1.25
G229 Boing v3	great platformer	1.25
G230 Punter	animate horse racing games	1.25
G231 Arcade Jigsaw	include lion king	2.50
G232 Wheel Chair Gladiator	very fun to play	1.25
G233 Nimble	brilliant new arcade puzzle	1.25
G234 Black Dawn 3	super 3d adventure	2.50
G235 R3 Rocket	very good rockets games	1.25
G236 Battle Ship	the finest pd version	1.25
G237 Last Lap	fast car racing	1.25
G238 Quadrix		1.25
G239 Ultimate Tour Tennis	tennis games	2.50
G240 Dark Angel	(not wb 1.3) arcade adv	1.25
G241 Raise The Titanic	good 3d adventure	1.25
G242 Phantom	shoot games (defender 96)	1.25
G243 Macdona-Land	similar to zool not A1200	1.25
G244 Joust 111	c64 games withamiga graphic	1.25
G245 Deluxe Galaga v2.6	very latest galaga	1.25
G246 Lazer Race	good tron type	1.25
G247 Train Driver Simulation	realistic train sim	1.25
G248 Master-Blaster	kill monsters with bombs	1.25
G249 Knock Out	mini destruction derby	1.25
G250 Dungeon Hero	3d adv similar to doom	1.25
G251 Mortal Kumquat 3	weird beat-em-up	1.25
G252 Code Name Nano	thrust clone	1.25

Amiga Workshop



Imagine 4.0 steps up a gear, Directory Opus 5.11 gets serious, SoundStudio winds up and our new DTP series gets into its stride. All this and loads more can be found in this month's Workshop.



Imagine 4.0 76



Desktop Publishing 82



Masterclass p96

Regulars

Imagine 4.0

PART 5

Due to popular demand, John Kennedy looks at some of Imagine's more advanced features, this month an introduction to states and bones.

For this tutorial we'll be looking at examples of two of Imagine's most powerful modelling tools: States and Bones. They are used to produce realistic animation effects. Bones, in particular, will produce incredible results and prevent your objects from looking 'fake' and robotic as they move.

Few other rendering packages come close to providing this level of power. It's true that it will take time to master how these techniques can be used, but hey, we're here to help.

Before we jump in at the deep end with Bones, it's important to understand the concept of States, as Bones and States are closely related – Bones are an extension of States.

States of mind

Think of a State as a way of taking a snapshot of an object and capturing its surface attributes, shape, textures and image maps. You can take as many of these 'snapshots' as you like, altering the properties between each one. You might change the colour, or the position of a wheel or the way a texture is mapped.

At any time, you can select one of your pre-programmed States from a list and apply it to the object. Instantly your object will change to reflect the new settings.

In the same way that Imagine will work out the 'in-between' locations when you move an object between animation frames, you can also make States vary over time.

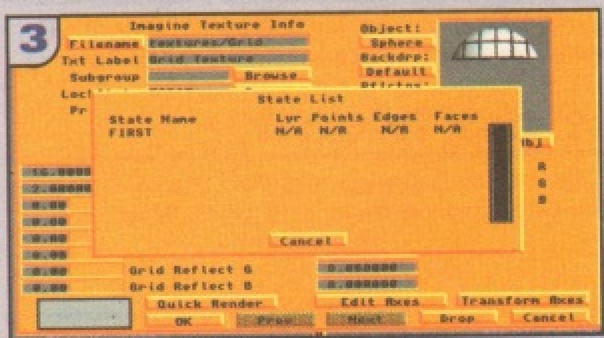
This means that effectively an object can carry around extra information with itself. Not only will it contain information on all the different primitives, surface attributes and textures, but it will store the values associated with each of these.

This makes some very impressive animation possible. Car wheels spinning, bird wings flapping, flames flickering and all directly from the Detail Editor with no need to mess around in the now outdated Cycle Editor.

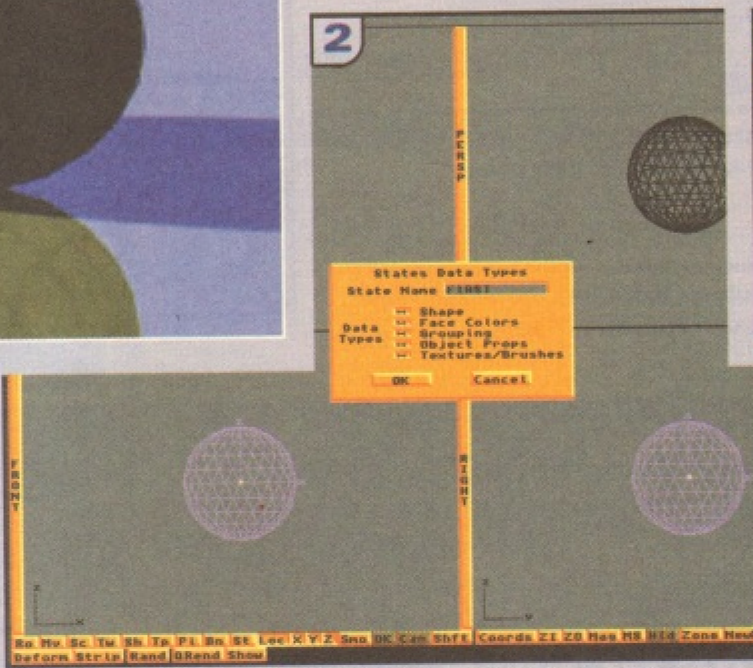
Using States in this way allows Imagine to keep better track of textures. When you apply a texture to an object and use States to store an object in two different shapes, the texture will remain accurately positioned: even if you warp the object by distorting it, stretching it or twisting it.

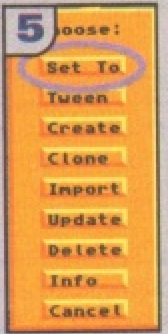
Here's an example of how you can create an object, assign it to a State, alter it and watch how the textures are carefully managed when the object changes shape.

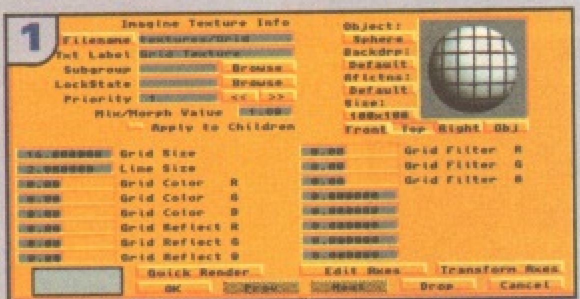












1. Create a Sphere object (press F5) and from the Attributes requester select and apply a texture to it or use the procedural texture 'Grid' for this example.

2. From the States menu, select the first item: States. A menu will appear, and you should select 'Create'. This will create a new state. Enter 'First' as a name, and click all the boxes to preserve all the settings from State to State.

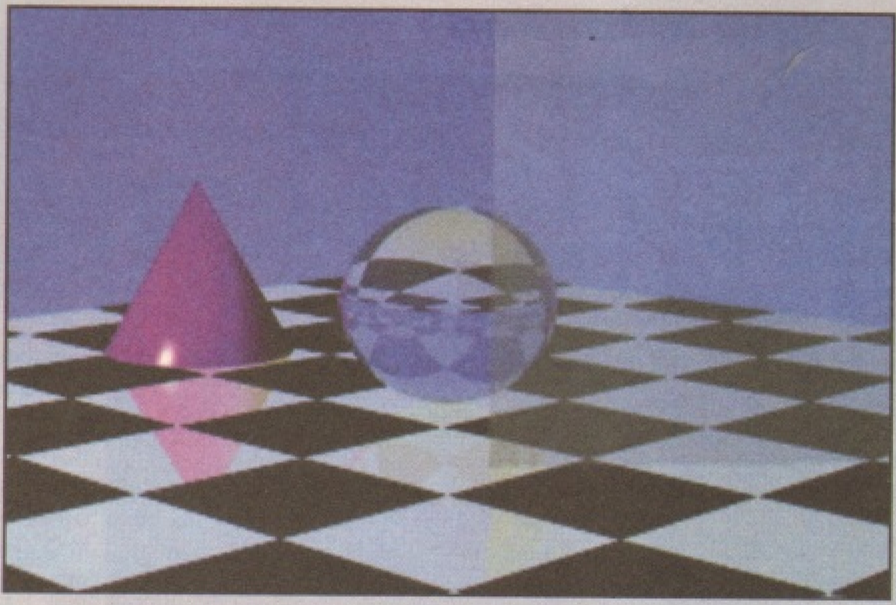
3. Go back to the Checks texture, and find the 'LockState' button. Click in here and enter the name of your first State.

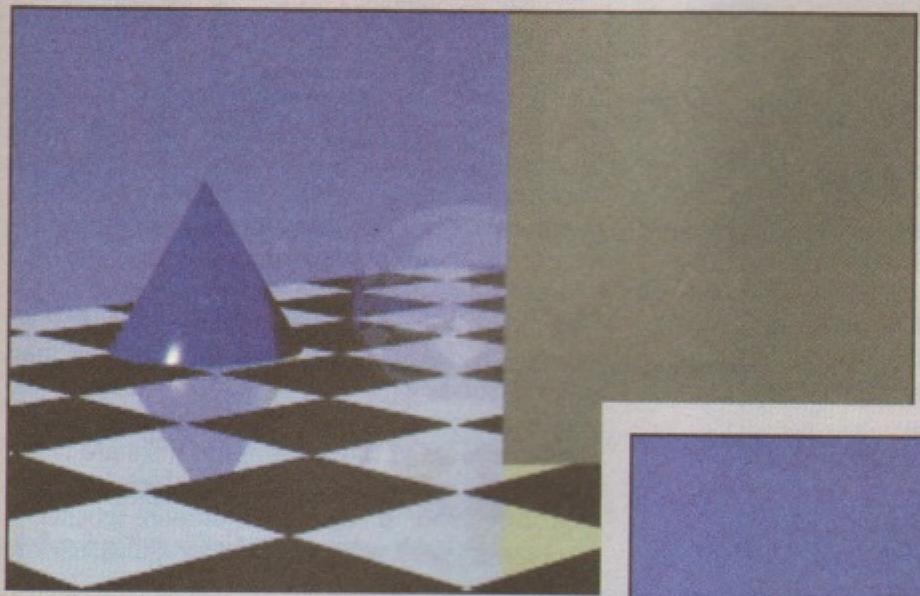
4. Now use Deformations from the Functions menu and apply a twist to it of about 30 degrees. Select 'State' again, and create a new setting called 'Second'. Save the object.

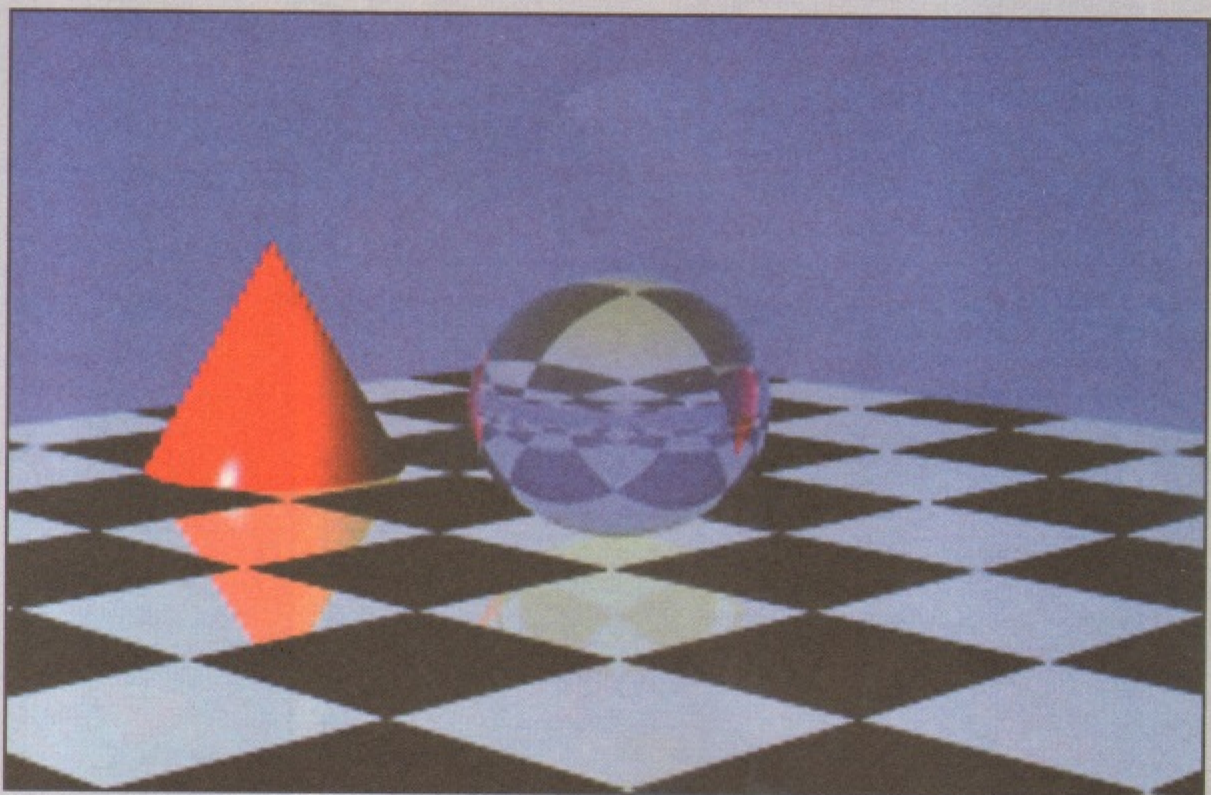
5. Now copy and paste the sphere. Select one, and bring up the States menu, but this time pick 'Set to.' Pick First from the list. Similarly, set the other to Second.

6. Now we have a scene consisting of two spheres. Although they are both the same object, there are two different States associated with it. Notice how the texture is warped as it is mapped around the twisted sphere.

This is only one way in which States can be used. Remember that a lot of information is captured in each State. Try the same thing again, but this time instead of altering the shape or size of the object, alter the surface attributes. In this way you can make an object suddenly become shiny, or transparent or even change colour completely.







As the following sequence shows, it's possible to use the States command to keep track of the physical attributes associated with an object and gradually change them over time. Here, one object becomes transparent, another changes colour and a third changes its index of refraction.

You can perform all kinds of tricks using States. Remember than each procedural texture you apply has a host of settings to control their appearance.

Below is another example, pick the Frogskin texture. In one State have the



settings in the top image here and in the second State have these settings:

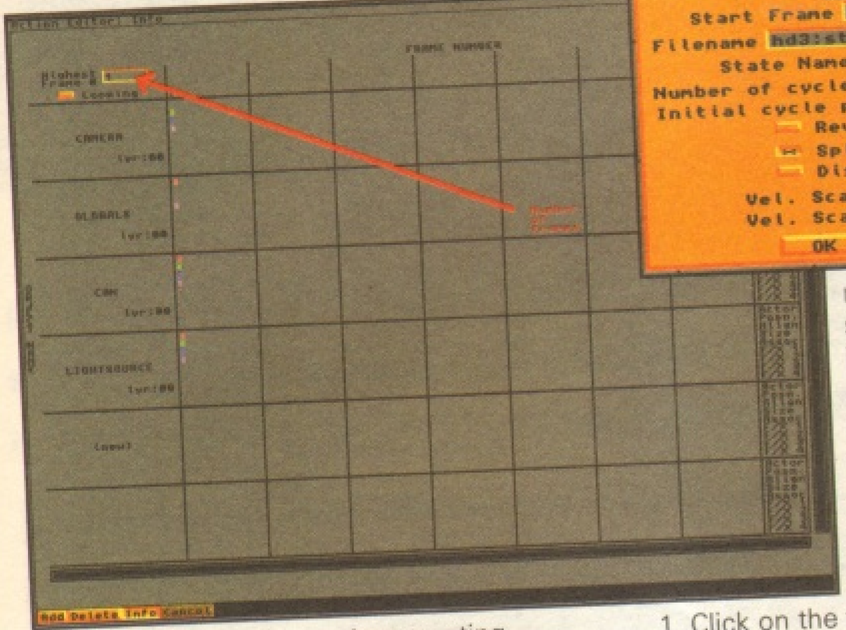


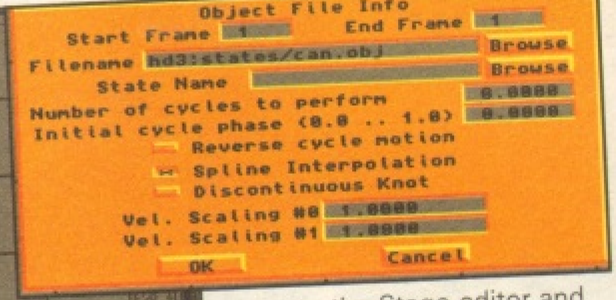
Now the object can change from one texture to another over time, producing strange and organic effects.

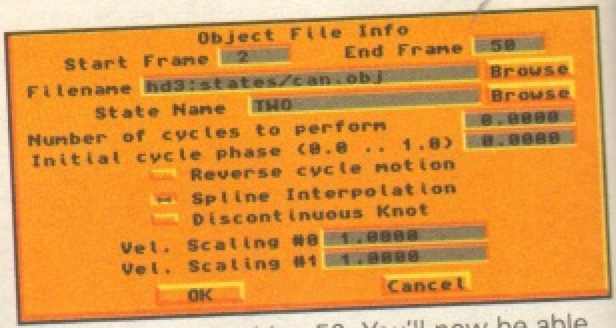
It's almost impossible to believe that the two spheres in this image (see picture bottom right) are both using the same texture and that any intermediate frames will consist of surfaces which are half-way between one and the other.



Getting animated







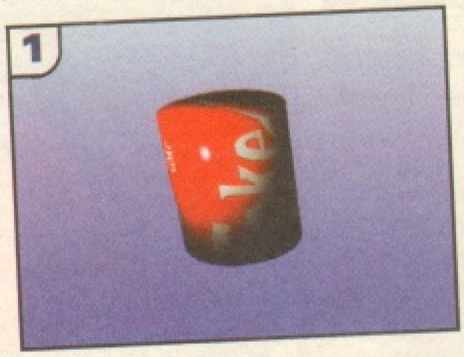
States are of most use when creating animations, so let's look to see how they can be used.

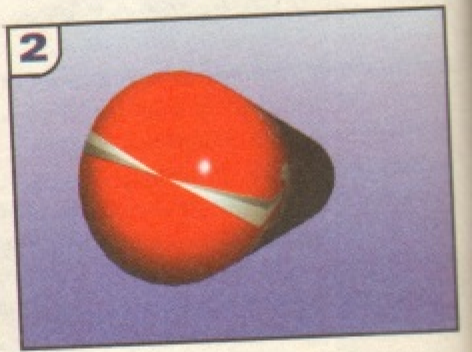
If you have already played around with Imagine's animation facilities, you'll know that causing an object to move over a sequence of frames can be pretty straightforward. You need to define the start position and then the end position – Imagine will work out the in betweens.

It's a similar story with States. First of all, define your object and give it a list of all the States you want it to display. Save the object, move to the Stage editor and set up your scene as you want it. Now move to the Action editor, and define the number of frames in the usual way. You'll notice that your object appears in the list of actors in the scene.

Your actor will by default be only present in frame number 1. Click on the first bar (the pink one), and you'll see a requester appear. From here you can set the State which the object will have by default. Now let's say you want it to morph to a new texture by frame number 50. Select ADD (use the button at the bottom of the screen) and click in the first bar of the Actor, in position 1 and position 50. You'll now be able to select the object you want to be present (select the same object) and also the important part – the new State. When you create the animation, your object will change from the settings in the first State, to the settings in the second State.

There's nothing to stop you applying other special effects at the same time: here are some frames from an animation which has a coke can spinning around the screen, whilst simultaneously changing shape and size.









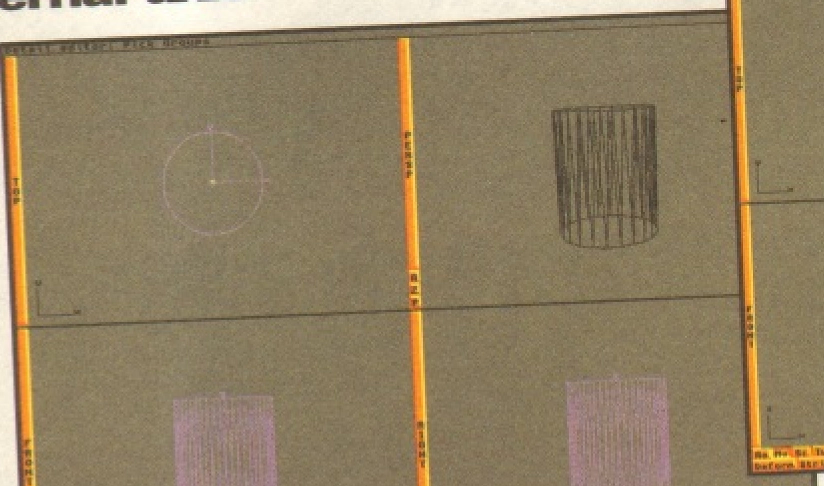


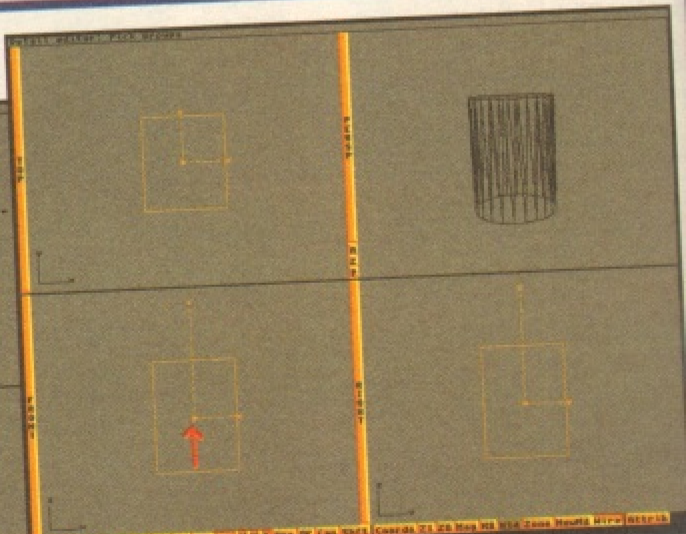


Moving the internal axis

Every object you create in Imagine will have its own axis. To Imagine, this defines where the object is centred, and how the object will move and rotate. When you create an object, the default location axis might not be where you want to be, and this can cause problems when you animate an object. For example, in the animation of the spinning, morphing coke-can, the default location of the axis is at the centre of the very bottom of the can. Causing the camera to track to this location means the can might not be entirely in frame as it rotates.

It's possible to edit the internal axis independently of the object itself. To do this, you simply hold down the shift key as you select the tool which normally edits the object. In other words, with the object selected, hold down Shift and press 'm'. You can now move the axis and reposition it somewhere more appropriate.





Here the default axis location is at the bottom of the tube, which means when the tube spins, it will spin around this point.

Using shift and 'm' allows us to move the axis, here to a more central position.

Next Month in CU Amiga Magazine

We've got another essential issue for you next month, packed to the gills with all the regulars you know and love, with loads more besides. Here's just a taster ...



Zorro Towers

You asked for it and you've got it. Our Build Your Own Tower Amiga series moves into seriously productive territory next month as we take a look at a number of ways to add Zorro power to your A1200. It's not as tricky or expensive as you probably think, and once you've got that sorted, a whole new world of opportunities opens up: 24-bit graphics cards, 16-bit sound cards, SCSI interfaces, realtime digital video editing cards, multiple I/O expansions ... the list goes on. Make sure you don't miss it!



Survey results

Our readers' survey went out with the January '97 issue of CU Amiga, and since then the results have been compiled, collated and turned into some very revealing graphs and charts. We couldn't ask you to supply us all that information and then keep it to ourselves, so we'll be spilling the beans to one and all in the next issue, plus information gathered from our Internet survey too.



PC Emulators: head-to-head

The question of PC compatibility just won't go away, and now that both PCX and PC Task have both been brought up to date, we thought it time for a showdown. Can you really emulate a PC on your Amiga without it slowing to a crawl? Will either of them run Windows 95 applications? Could it be the ideal alternative to a 486-based home office PC? And what about all those 3D texture-mapped games like Resident Evil, Duke Nukem 3D and Doom? Find out all this and the results of our extensive long-term tests of both emulators.



Internet: what is in it for you?

With everyone harping on about the Internet and how it's going to change all of our lives for ever, just what can it offer you? Quite a lot actually. If you're one of the thousands of Amiga users still to be convinced that it's anything but the latest buzzword designed to part you with your cash, we'll have you chomping at the on-line bit by this time next month. Oh, and doesn't it cost a fortune? Well it needn't do if you follow our guide. Prepare to be converted. ■

Top Secret!

Our next cover disk application is going to be another scorcher! Much as we'd love to, we can't name it right now, but as you've come to expect from the only magazine to bring you full versions of Imagine 4.0, Directory Opus 5.11, PageStream 2.2, Image FX 1.6 and OctaMED SoundStudio, it's going to be well worth waiting for.

JUNE ISSUE ON SALE 15TH MAY

Directory Opus 5.11

Expanding on last month's introduction to Opus 5.11, we take a closer look at the many powerful 'hidden' functions of the listers.

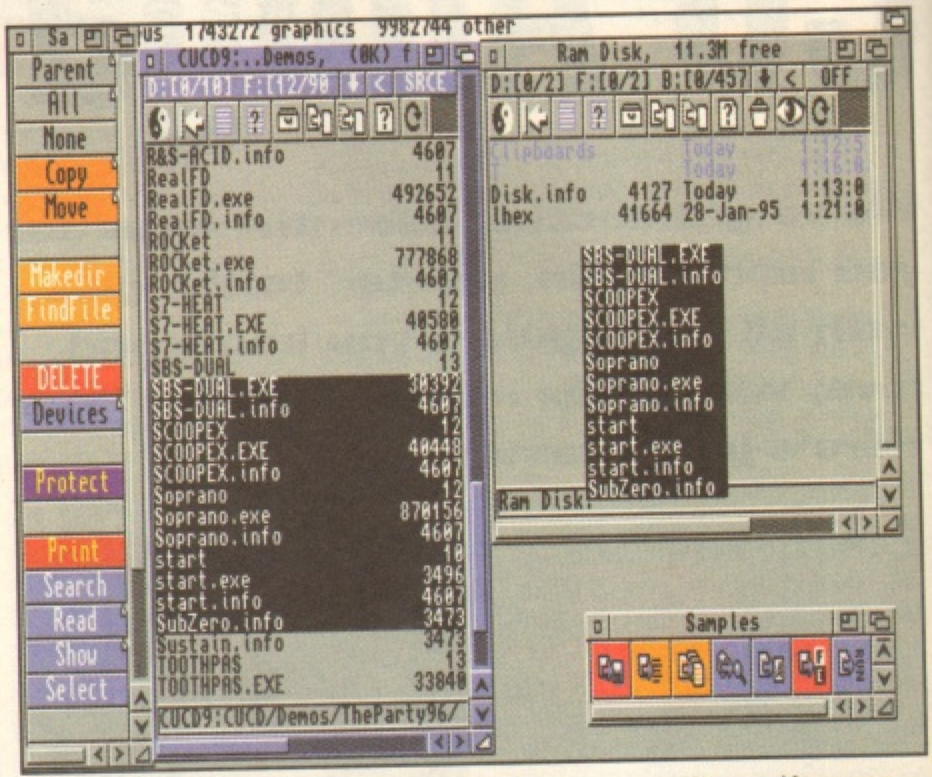


Directory Opus 5.11 has loads of quick and easy features, most of which are no more than a mouse-click away. For this little tutorial we suggest you have your Opus 5.11 software up and running, so you can try out the tips and features as you go.

Lister modes

Listers have two modes of operation: Name mode and Icon mode, each selectable from the Listers/View As menu. In Icon mode, a lister looks and behaves like a normal Workbench window, with files represented by their icons. In Icon mode you are limited to viewing directories and running programs. However, it's in Name mode that you have access to the real power of Directory Opus 5. Here you get a detailed list of all the items in the directory, which can then be manipulated using the tool bar and other features.

A Name mode lister can be defined as either a source or destination. For example, when the Copy command is activated, files are copied from the source lister to the destination lister. Normally, you would have just one source and one destination, with any other listers in the 'off' position. However, you can lock listers so that you could, for example, copy files from one source to two destinations at the same time. You can tell the state of a lister from the right-hand edge of its status bar. This will display either SRCE, DEST or OFF and will be colour coded accordingly. Clicking on this part opens a small pop-up menu which has options for you to alter the state of the lister. You can also use this menu to 'nail' a lister to its current size and position on the screen. For a shortcut to turn any lister to a destination, just click anywhere on the status bar while holding down the Shift key.



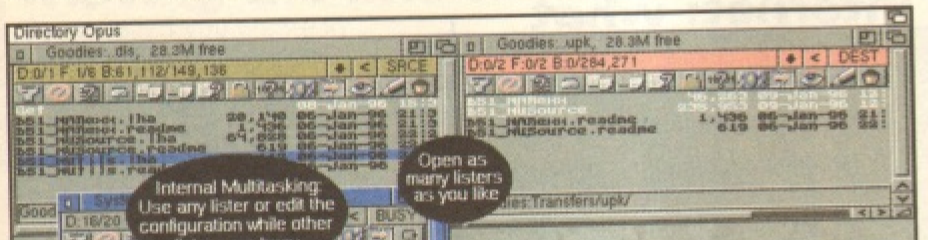
▲ As the with most things in Directory Opus, there's more than one way to move files around from one area to another. Here the files from the drawer on the left are being 'dragged and dropped' into the RAM disk.

Navigation

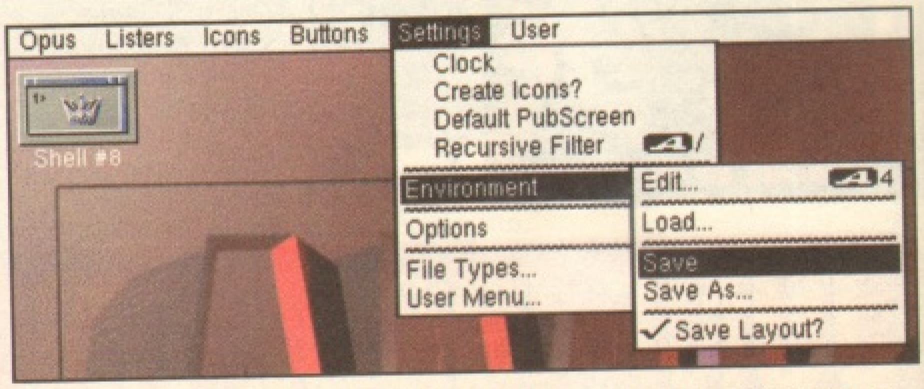
There are two ways you can scroll around the contents of a lister. The obvious way is to use the drag bars on the right and bottom edges of the lister window. Alternatively you can scroll vertically and horizontally by holding down the right mouse button and dragging it around the window.

A single click on a file will select it. If you double click a file, Opus looks at it, checks to see if it's a type that it recognises, and if so performs a specific action upon it. For example, if you double click an executable program file, Opus will run that program; if it's a recognised picture format, the picture will be displayed. You'll find that many different file types can be recognised in the default setup, but you can also expand on these by teaching Opus about new file types and what to do with them. Use the Settings/File Types menu selection to access these options. This can be a bit of a fiddly job in Opus 5.11, although it's made much easier in version 5.5.

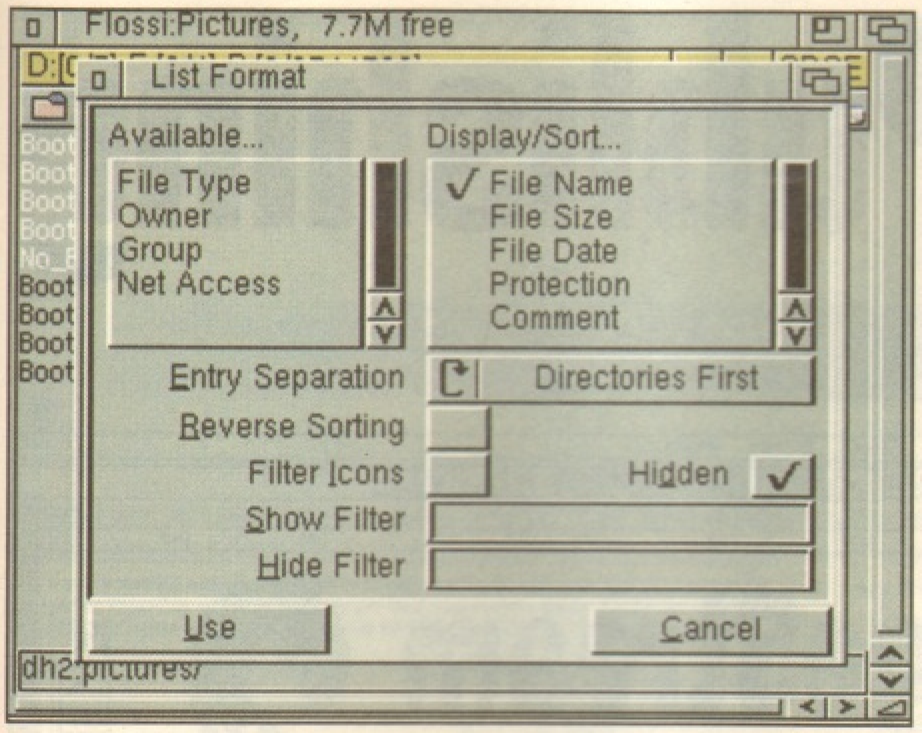
A simple double click on a directory within a lister will cause that lister to change to that directory – easy. However, if you hold down the Shift key as you double click the directory, the original lister will remain intact, while a new one is opened to display the contents of the selected directory. Or you



▲ Compared to the relative simplicity of version 4.0, Directory Opus 5 is an incredibly powerful system. In fact, many find it preferable to Workbench itself. Take a look at this screen shot and you'll see why!



▲ Make sure you save the environment settings once you've got everything set up as you like it. If you want the positions of the listers and windows saved too, remember to mark the Save Layout option as well.



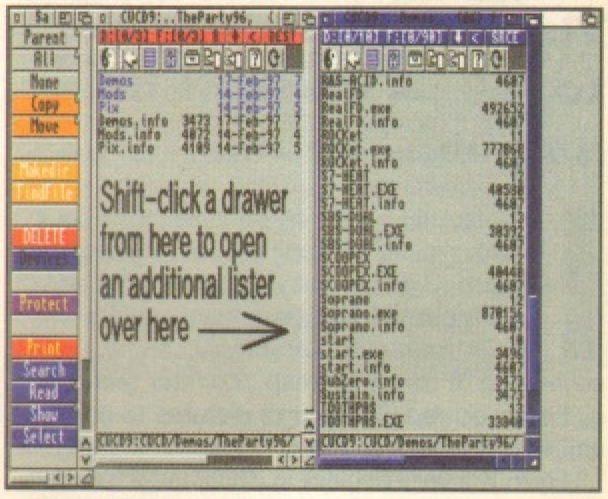
▲ Along with the names of files, listers can also display a range of additional information for each file, such as creation date, file type and so on. The List Format window is used to select what extra info is shown.

can hold both Shift and Alt when you click a directory to split the current lister in two. To move to the previous 'parent' directory, you can use one of three methods. There's the Parent icon at the top of the lister (an arrow pointing to the left), or you can click on the thin left-hand edge of the lister box itself. Or just use the '/' key.

Drag 'n' drop

You can drag and drop files from one lister to another to copy them (by default), or to the main Opus window to have the file 'left out'. To drag and drop, select some files and move the mouse outside of the lister window to the left or right without releasing the mouse button. The names of the selected files should follow the mouse – move them over the required destination lister and release the mouse button. You'll no doubt be used to doing this from Workbench windows but it can take a bit of time to get used to doing it from text-based listers. My advice is to click on the very left of the filename and drag quickly to the left – vertical movements will select additional files. Similar drag and drop functions can be performed in various other areas of Opus, so give it a go if you get stuck somewhere. Opus 5.5 has even more drag and drop support.

Both name and icon mode listers can be controlled by the keyboard. Press Space to begin keyboard control and then use the cursor keys to move the highlight or arrow. Pressing Return will toggle the selection status of the file in question, and pressing Enter on the numeric keypad will do the same thing as double clicking on the file. You can jump to specific points in the alphabetically sorted listers by pressing the relevant letter on the keyboard. In Opus 5.5 you have the option of being able to jump to the first file matching an entire string, which is useful in directories where many files have the same prefix.



▲ If you hold down Shift whilst double-clicking a directory, the original lister will remain while a new one is opened for the selected directory.

List by ...

You can change what information is included in a name mode lister. To do this, double click on the lister with the right mouse button or select Listers/Edit from the pull down menus. This brings up a small panel with two lists. The left list has types of information that can be displayed, but are not. The right list contains types of information that are displayed. You can drag and drop entries from one list to another to make your changes. This section can also be used to specify how files are sorted (by date, name). Click on the relevant entry in the right list and it will be marked with a tick to indicate that this will be the information used to sort the files. Opus 5.5 adds the option to display the version number of files alongside them. It also has a new Icon Action mode which combines the icons with the toolbar and power of name mode.

To save your settings, switch on Save Layout from the Settings/Environment menu. This will not save the layout, but the layout will be stored when you next select Settings/Environment/Save. ■

Leo Davidson

Pulldown menus

In order to get the most out of Opus you will almost certainly want to go through the five standard menus with the on-line help so that you are familiar with the options available to you.

If you have other Workbench enhancement-type programs running in the background, you may also have an additional Tools menu. Entries in this menu will not be covered in the Directory Opus documentation of course, as they will have been put there by those background programs.

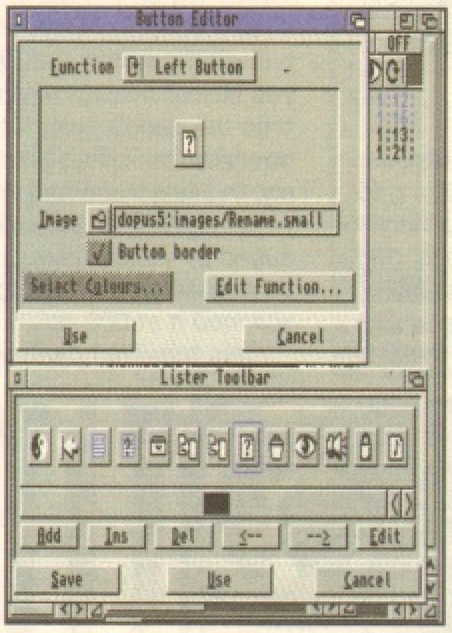
The last one is the User menu, which is completely user definable. You could think of it as a button bank presented in the form of a menu. By default it provides access to the Format and DiskCopy requesters, and some other useful bits and bobs. Note that the Disk Info item works on the current source lister, and that the LHA related items only work if you have the LHA archiver installed on your system. LHA is available on Aminet and all other good sources of freely distributable Amiga software.

Push the button

Name mode listers have a toolbar which contains a set of buttons providing quick access to commonly used commands. Unless you have a particularly wide display, there probably won't be room for all of them to fit along the top of the lister at once, so click on the cycle gadget on the right end of the strip to being up the rest. These buttons can be redefined to perform different tasks depending on whether the left, right or even middle mouse button is used. To enter the Button Editor, hold down Alt and click the button you want to alter.

Multi threads

Listers go busy while performing operations but if you have something else to do at the same time you don't have to wait for them to finish, just open more listers and continue doing what you want at the same time. This is one of the seemingly small features which in many situations makes Opus 5 far more efficient and flexible than Workbench.



▲ You can assign your own specific commands and tasks to the button strip along the top of the listers.

Desktop Publishing

Graphics in Publishing

PART 2

More informed expert advice from DTP guru Larry Hickmott. This month he's here to tell us about it in graphical detail.



▲ Structured graphics are great for certain types of illustrations and can be resized without a loss of clarity, while .

It's a fact that desktop printers these days enable Amiga owners to print photo quality images. I guess most of you by now have such a printer or at least have seen the results from one. Before you can take advantage of this great leap in printer technology however, you need some pictures to print and that is what this month's tutorial is about.

From the very beginning, the Amiga has had a reputation of being something special when it comes to graphics and although the Amiga's hardware has slipped somewhat, we continue to see software being released that lets us create better and more complex imagery.

This tutorial though is not about creating the imagery, but rather its use in publishing. This week for example, I've been asked a number of times about scanning colour photographs. How many colours and at what resolution? Then there have been the questions about whether one should use structured objects or bitmap graphics for use in publishing.

There is no definitive right answer to the questions posed because as always, it depends on how the images are to be used. Scanning an image to be used on a web page for example, is very different to scanning one for DTP, so let's deal with some basics first.

Scanning tips

Images that are scanned are saved to disk as bitmaps. A bitmap image is made up of a grid containing different coloured pixels in a number of layers called bit planes. The more 'bits' there are, the more colours the image can contain.

In most situations, there are two types of bitmaps you will create. One will be a line art scan with two colours like black and white. Because it is two colours, if you are thinking of scanning such an image then remember this simple formula: the scanning resolution you choose should be equal to the resolution of the printer for same size reproduction.

Let me give you an example to make that point clearer. You have a picture which is three inches big on the paper and you want to use it three inches big on your electronic page. Your printer is capable of 300 dots per inch (dpi). So you scan it at 300 dpi and when you import it onto the page in your software, you scale it down until it is three inches big again. Put simply, this has the effect of scaling each pixel when printed, to the same size as the dot produced by your printer. If the image was going to be printed six inches big, then you would have scanned it at 600 dpi.

This formula however does not apply to photographs. Photographs are very different. Imagine a curved line in black and white. On-screen, you can generally see the steps as the pixels form the curve. If however that line is created in an environment where the application has more than just black and white in its palette, say 16 colours, you can have the program anti-alias the line.

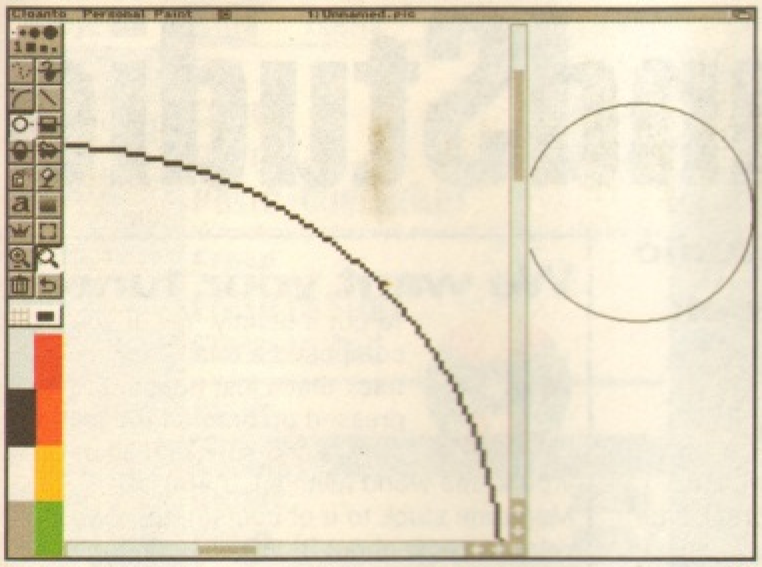
What the program does is use the other colours available to visually smooth out the steps as the line curves around. So whereas in a two colour image the line goes from black to white with nothing in between, when anti-aliasing has been applied, the line goes from black to shades of grey to white, but you just see a smooth line. It isn't until you magnify the line and see the shading, that you can understand what is going on.

In a simplified way, a similar thing happens in photographs which is why you can get away with printing such an image at a lower resolution than one which is simply black and white. The upshot of this is that if you have a photograph that is three inches wide and want to print it three inches wide, then you would only need to scan the image at 100 dpi.

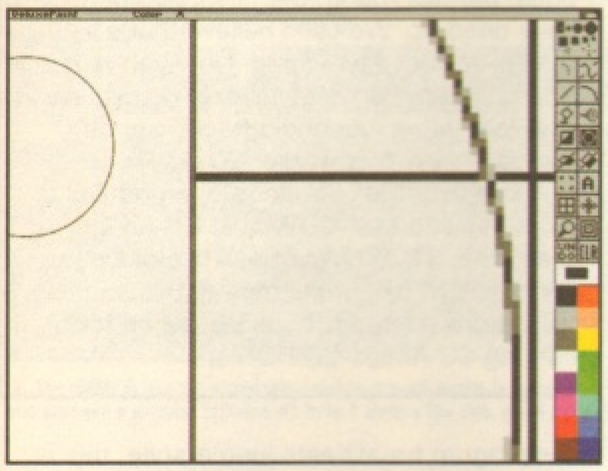
Even if you don't understand the ins and outs of it all, the simple thing to remember is that you can get away with scanning photographs at a lower resolution than line art.



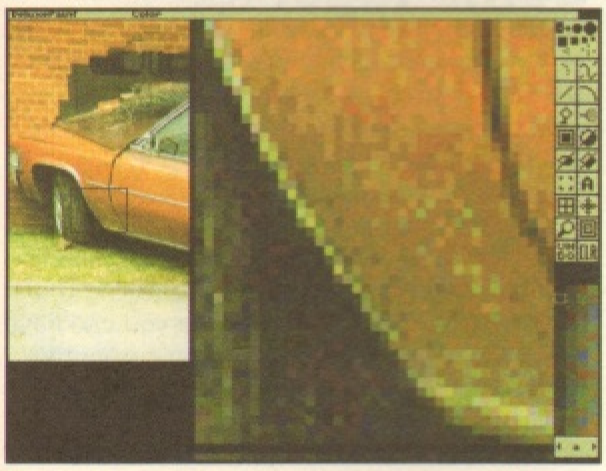
▲ Here is an example of how a picture created in a structured drawing program can be exported as a bitmap and then used on a web page.



▲ If you're working with black and white images you should scan your source at a specific resolution depending on the output 'dots per inch' scale of your printer. Otherwise you're likely to see jagged edges on your print-out where the pixels clash with the dpi.



▲ This is how anti-aliasing can make curves look smoother by placing grey pixels between the black and white ones. This is one of the reasons why you can scan photographs at a lower resolution than line art.



▲ If your images print all blocky like this screenshot here, then you need to scan at a higher resolution or print the picture smaller.

One more thing before we move onto another subject. Although photographs do not have to be scanned at high resolutions, avoid scanning at too low a resolution and then enlarging that picture because that will lead to pixelisation or blockiness, a similar sort of thing to what you see when you use the magnifying glass to look at a picture in your paint program.

In creating magazines like CU Amiga, images which are being printed at 2400 dpi or greater, are generally scanned at around 300 dpi for same size reproduction. So, if you're using a much lower resolution printer, say 720 dpi, then your scans only have to be scanned at around 100 to 150 dpi. You only use up more memory and hard disk space by scanning at higher resolutions and the irony is that the extra information doesn't enhance the quality of the image in any way on a desktop printer.

Conformity

Moving away from scanning, it's time to tackle the subject of structured graphics versus bitmaps. By now you've probably used structured graphics to some degree, while everyone has used bitmaps. If you're serious about producing good quality DTP then it's essential you can get the best from both types of graphics, which requires an understanding of how they differ. It's odds on you've had an introduction to structured drawing from our February 1997 cover-mounted Design Works program, or Draw Studio which is one of the few programs to mix the two types almost seemlessly.

Basically a structured drawing is stored as a set of instructions. When a structured drawing is displayed, these instructions are followed and the picture is drawn up, a bit like a robot following a set of instructions to build a car. Because these instructions are based on drawing lines and curves from one relative point to another, they can easily be re-scaled and drawn at bigger or smaller sizes than the original, without any loss of clarity. In other words, they won't go chunky if you expand them, unlike bitmaps.

You normally get fairly simple tools to work with in a structured art package, but quite often these can be extended with automated functions, making it very easy to create certain types of logos and other DTP graphics.

However, bitmap graphics are much more versatile, so the key is to use structured art when it's quicker, easier or if you need to create a specific logo or icon, and bitmaps for most other occasions. Because of the nature of structured drawings, there are many slightly different file formats, which makes cross-compatibility something of a problem (one type might support a certain kind of fill-type for example, while the next may not). Even though there are also many different bitmap graphics formats, most decent image processing packages (such as this month's Image Studio cover mount) will come pre-configured to load and save in the most popular formats.

Image experiments

There's more. Being involved in DrawStudio, I have come to learn that when you want do some things like place a bitmap fill inside some text, that most structured formats, at least those supported by the majority of Amiga applications anyway, do not support this. Transparent structured objects are another example of this.

Now this won't matter if you're happy with the tired looking clip art we've seen for years on computers, but if like me and many others I know of, you want you take advantage of newly created avenues for image creation, then you need to realise that the bitmap format is the one you need to look to because it supports all the functions a program can come up with.

If you're ever at a loose end with nothing in particular to publish on your desktop, why not have a crack at making your own clip art collection. Trawling through clip art CDs can be a tedious process, as most of them seem to be scanned from 1970s public information documents. Structured art packages are normally best for this kind of thing, with lots of little tools and short cuts to make it easy to design slick logos, arrows, even distorting fonts to make wild headings. There's a lot more to creative DTP than just fonts and box-outs, so take time out to experiment and get to know the quirks of your graphics software as well as your main DTP package to give your productions an edge over the competition. ■

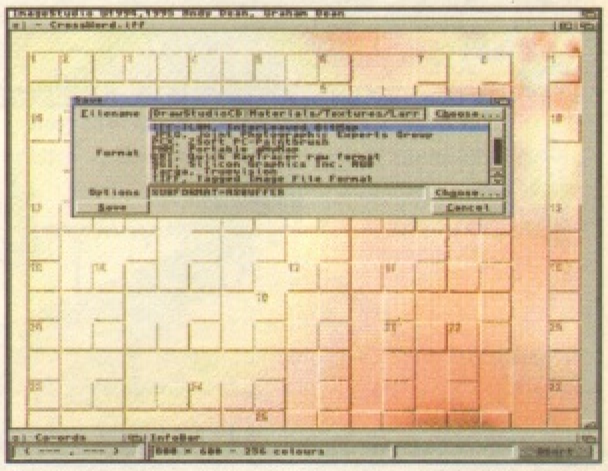
Larry Hickmott

Some extra help

SCANNING: Scan line art at a resolution matching that of your printer but scan photo type images at a lower resolution of around 100 dpi for same size reproduction on a desktop type printer.

IMAGE FORMATS: Both bitmap and structured formats have advantages and disadvantages. Structured images react better to scaling and distortion and print quicker on PostScript devices. However, the formats vary so much that it's difficult to find one that can be used in all Amiga applications. Structured formats also do not support many creative functions like bitmap fills and transparency.

Bitmaps on the other hand, are better for the more creative users because you can have anything in your image (like bitmap fills and transparent objects). Bitmaps (IFF-ILBM) are also very compatible with most Amiga applications. However, bitmaps have to be treated carefully when it comes to scaling and distortion but used properly, can print every bit as good as a structured object.



▲ When using graphics from another platform, you'll save yourself some headaches by converting them to the Amiga standard of IFF-ILBM. Don't rely on data-types because they can be unpredictable.

Next month

In part three of this series, I'm going to look at word processing and DTP. If you've ever wondered whether you need a DTP package or what your word processor is capable of, then make sure you pay us a visit next issue.

OctaMED SoundStudio

PART 3

We wrap up our OctaMED SoundStudio cover disk series with an indepth look at some alternative uses for the program and a quick Q+A section.

All good things come to an end unfortunately, some rather more prematurely than others, and this SoundStudio series is no exception. To round it off we're going to take a look at a number of more 'alternative' ways in which SoundStudio could be integrated into different musical set-ups.

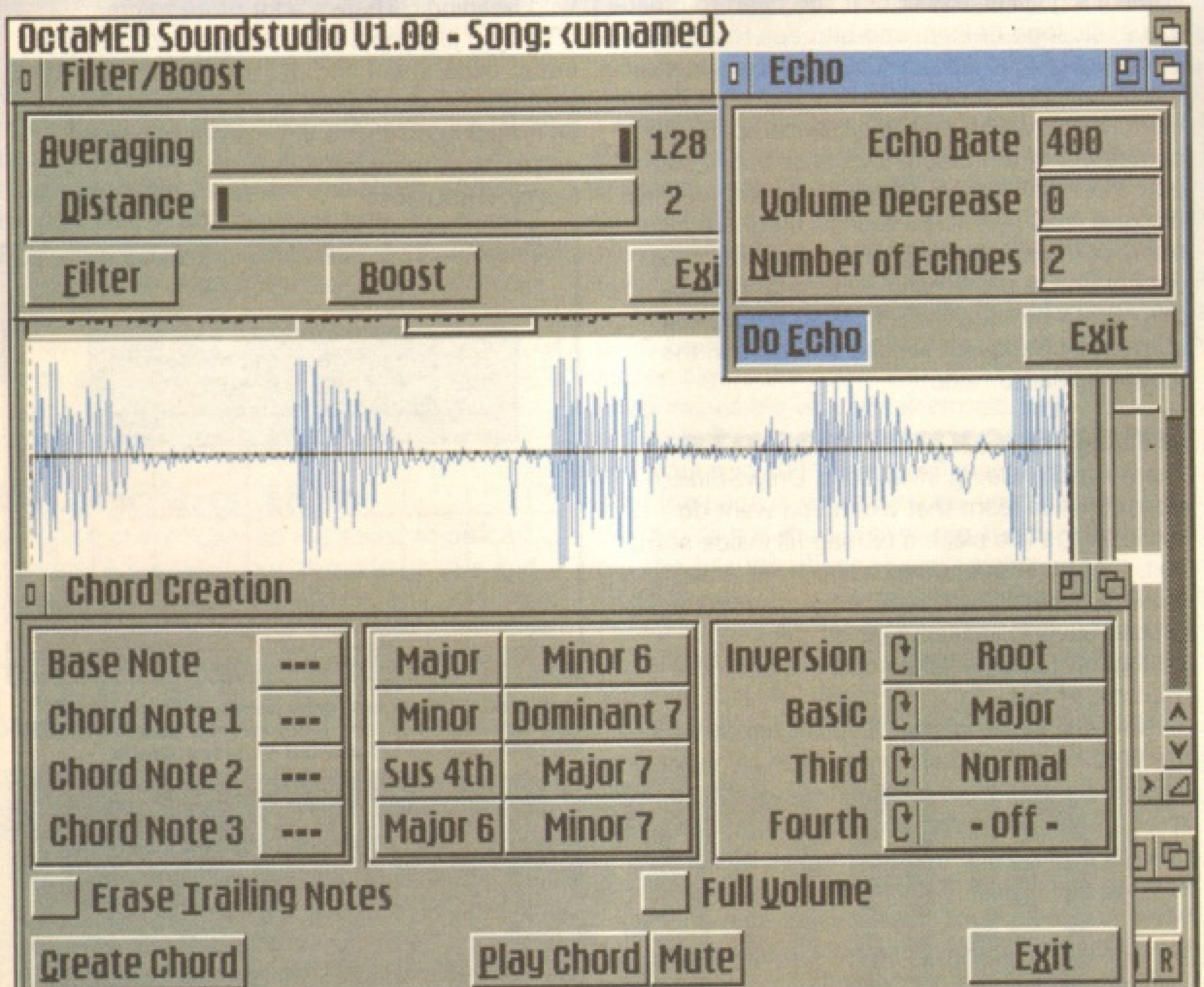
To get the very best from OctaMED SoundStudio you should get hold of the official printed manual which goes into far more detail than we could ever have room for in the magazine. See the box on the opposite page for more details.

Sample mangling

This is one of my favourite parts of SoundStudio because it opens up so many avenues for manipulating samples and creating new and exciting sounds. Even if you don't touch any of the sample mangling tools, you can use it as a sample conversion utility, pulling in just about any sample format and saving out to a new format, especially when used in conjunction with the Instrument Type panel. This ability to import and export a range of sample formats makes it an ideal companion to external MIDI samplers or even digital sampling systems on other platforms. With a little imagination and a touch of jiggery-pokery along the way, you should be able to edit and convert samples from all manner of different sources (and don't forget you can format 720K PC MS-DOS disks from any A1200).

One of the best ways to experiment with the sample editor is to load up a sound, let's say a two bar drum loop, and then highlight various parts of the sample and subject it to the different effects on offer from the pull down menus. If you keep the Instrument Load Window open (click on the SList button) you can instantly re-load your original sound whenever you like, rather than having to use the file requester each time.

With inventive use of the tools such as reverse, filter, boost and so on, you can totally re-wire a sample, and if you're into chopping up breakbeats jungle-style, this is just perfect.



▲ There are endless sound manipulation possibilities with SoundStudio's sample editor. A little known use of the Filter/Boost window for example, is as a flanger. Toy with the settings on all the effects and you'll find plenty of strange noises coming from your Amiga.

Come together

We're often asked how can an Amiga be integrated into a non-Amiga driven music system. Hooking up with other musicians can be extremely rewarding but combining two different set-ups can be very tricky. If you're lucky, your collaborators will also be running an OctaMED SoundStudio-based system. If this is the case, it's no problem to synchronise two Amigas running SoundStudio. Using the Send Sync and Ext Sync features you can have the Play and Stop buttons of both computers controlled by the appointed 'master' Amiga.

Things get rather more tricky if you want to incorporate an Amiga playing SoundStudio with a MIDI sequencing system based around a different computer and software, but it can be done.

For example, let's say your mate has an Atari ST running Cubase, which is currently triggering a number of MIDI instruments. There are a couple of ways you can combine the two. In some ways the simplest method is to write a song on SoundStudio as the MIDI parts are arranged from the Atari ST. The two can then be played simultaneously, with the help of a few bars of metronome lead in to match them up as you tweak the tempo control. Of course, the Amiga and the Atari would have to be running at the same tempo, which would require you to switch the SoundStudio tempo from its default Speed mode (SPD) to Beats Per Minute (BPM) as used on the Atari.

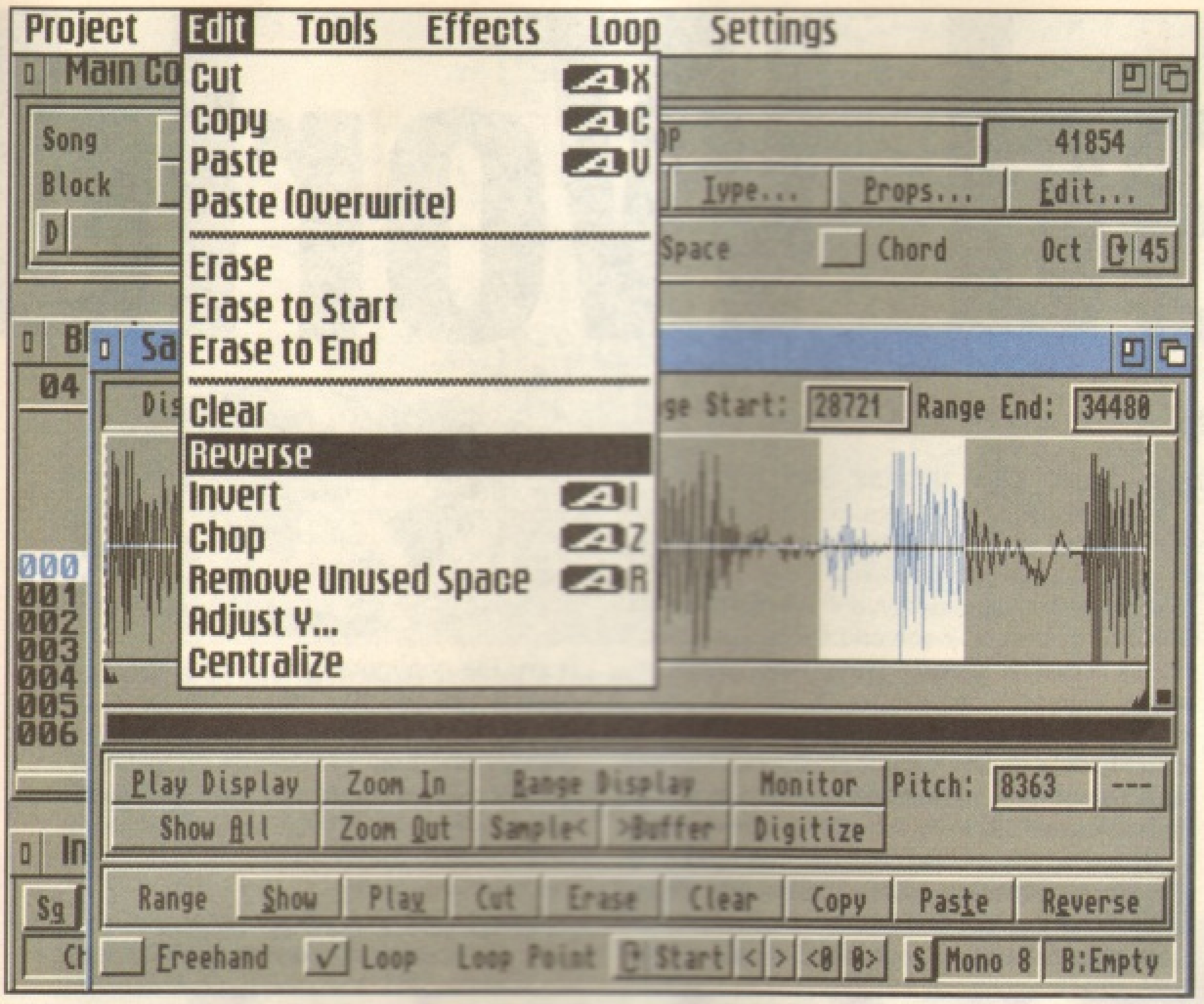
If that sounds a bit dodgy, you can always put SoundStudio into MIDI Module mode, in which it can be controlled directly from any external MIDI sequencer. In this case you

We want your tunes!



To put it bluntly. Yes, if you've composed a totally original track that's just begging to be pressed up onto an thousands of CDs and sprinkled liberally around the world (with a CU Amiga Magazine stuck to it of course), then we want to know about it! We've been the only Amiga mag to regularly include top quality Amiga-generated audio tracks on our CD editions, but this month the talent seems to have dried up. We can't believe that's actually true, so prove us wrong. Now you've got SoundStudio there's absolutely no excuse. And remember, our audio tracks can be played on any normal hi-fi CD player.

Send your best SoundStudio modules to us at this address: CD Mods, CU Amiga Magazine, 37-39 Millharbour, Isle of Dogs, London, E14 9TZ. All entries to this address will be considered for publication on forthcoming CU Amiga CD-ROMs.



▲ The ability to see the sound wave makes it much easier to understand what's going on when you flip, chop and generally mangle your samples. If you ever use a sampler that doesn't have a display like this, you'll appreciate what a god-send it really is!

wouldn't actually write any song data from the SoundStudio end. All you would do is load up a number of samples and assign each to a MIDI channel. The Amiga then takes on the form of a multi-timbral sound module, triggered by the external sequencer (the Atari ST in this example).

MIDI imports

The other frequently asked question we get about SoundStudio is whether it can import standard MIDI files. Well, against all odds, the answer is yes! Even though SoundStudio works in a totally different way to the 'traditional' piano roll format of most MIDI sequencers, it has some clever built-in routines for loading and converting MIDI files to its own tracker format. This is no mean feat considering the differences between the two. To get the best translation, SoundStudio will ask you to set a few parameters according to how you want the MIDI file to be reproduced. You should expect to lose some of the finer points of the MIDI file, but there's plenty of room for experimentation with the import options.

Tricks and tips

The flexibility of SoundStudio means that whatever you want to do musically, it's odds on that there's a way it can be done. With a bit of initiative it's possible to find practical work-arounds to most problems, even if your Amiga system is on the modest size.

Here are a few example problems and solutions. Even if none of these is specifically relevant to you right now, it should give you an idea of how you can get it to do almost anything if you put your mind to it.

Problem: I have a couple of MIDI synthesisers but no mixer or DAT recorder. I want to cut a CD audio track with SoundStudio and these synths, but don't know how to combine all the elements and record them.

Solution: For this you will need to use the Record to Disk features of SoundStudio to make a digital recording of your entire song. Because there is no mixer in the set-up, you will need to sample parts played on the synths into SoundStudio and then combine these with all your other samples to make the song. In an A1200 set up, an Aura sampler would be ideal for grabbing the synth sounds/riffs.

If you can't play the synths yourself, sequence them over MIDI from another computer (a dirt cheap A500 would be sufficient) and sample them on your main machine. You can then cut a CD from the audio file on the hard disk using a CD writer.

Problem: I have recorded a top quality 16-bit 44.1kHz audio file to my hard drive and I want to cut a CD from it, but I have no CD writer and can't afford to buy one right now.

Solution: CD writers are an increasingly common addition to many home/work computers, so if you don't have one, try to find a friend that does. Even if it's a PC or Mac owning friend, you can copy your digital audio file from your hard drive to a removable mass medium, such as a Zip drive for example (SCSI not serial). You can then take this over to your obliging friend, plug in the Zip and cut the audio CD from that.

Problem: My Amiga is too slow to be able to mix more than five or six tracks with good sound quality. I was looking forward to using loads of tracks and now I'm fed up that I can't.

Solution: Make up your song in blocks of four channels or more, based around short sections of one, two or four bars. For example, make up a number of drum tracks with a few variations, then record them to hard drive. Once you have amassed a number of similar sections you can combine them into a song, using standard four channel playback for maximum quality. In effect you will have four or more channels playing on each track. ■

Tony Horgan



Get the manual

You've already got the most amazing bit of Amiga music software ever created, so why restrict yourself to merely using the features you can figure out for yourself? There's so much in the program that you'll probably never even come across from just scooting around the menus. The solution? Get hold of the official OctaMED SoundStudio manual. It's a neat ring-bound reference guide and tutorial to the whole program which you'll find much quicker and easier to use than the on-line documentation. It includes a complete list of all the player commands along with examples of each, detailed guides to each of the program's many sections, explanation of hexadecimal numbering and how it works, keyboard short-cuts, ARexx commands, and basically everything you could ever want to know about SoundStudio. It's available from RBF Software (not CU Amiga Magazine) for just £7. See the offer on page 20 of this issue for full details.



Wired World

Got something to say? This month we take a look at setting up a mailing list on your Amiga.



Setting up a Usenet newsgroup is a difficult thing to do so an alternative is the so-called 'mailing list'. The basic idea is that one machine sends out every posting to the mailing list via Email to a list of subscribers. Some form of robot (commonly known as a listserver) automatically processes requests to join and leave the mailing list. This technique is very handy since anyone at all can set up a forum on any topic with no restrictions on the subscribers or content.

Until the destruction of two of my A4000T's three hard drives, CU Amiga Magazine's mailing list was run on my MatSERV listserver software. Life goes on, however, and it turns out some new listserver software is being developed by Tom Bampton. It's still in public beta but quite usable now and showing great promise for future versions. Setting up a mailing list is a complex task and the software is in beta stage, so please read the documentation thoroughly with this tutorial. You will also require a static account for multiple Email addresses.

Also, think about whether you are willing to make the commitment. People sending Emails to a listserver don't expect to wait two days to get a response. It will require dialling up to your provider regularly and running the listserver or facing the wrath of angry subscribers.

Getting started

While you need a static account (ie you must be <user>@yourdomain.provider.co.uk or something) to run a listserver, you don't actually require SMTP mail delivery. However if have SMTP you will already have a very good multi-mailbox system in place and can skip to the Tom's listserver section. Other static account users such as U-net will use POP3 to deliver Email and we'll deal with this shortly. If you don't have a static account at all, you may be able to upgrade your account from a dynamic to a static as possible with U-net for example.

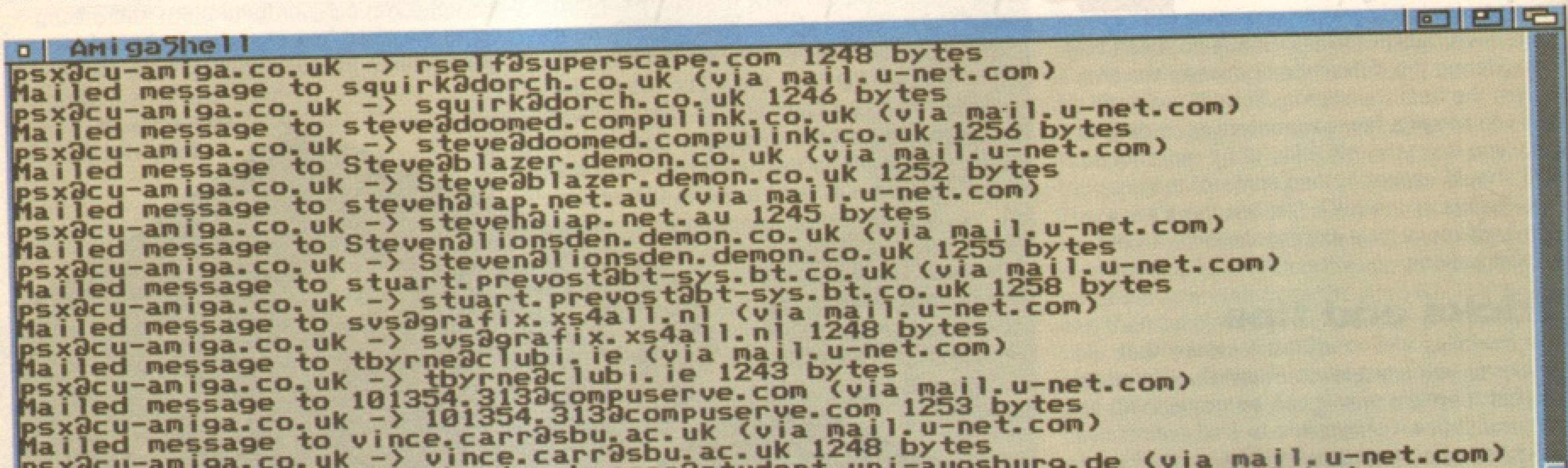
Running a listserver requires that incoming Emails appear as so-called RFC mail box files in an incoming spool directory. This type of system is most commonly used on accounts with SMTP mail such as Demon. The Demon installers use parts of the AmigaUUCP package for this purpose. The easiest solution, however, may be the Inet Utilities package for AmiTCP (even if you are using Miami). Again this is found in the Wired World section on the CD-ROM but can also be found on our FTP site atftp.cu-amiga.co.uk/wired-world/

Touching basics

The topic of setting up this system is rather complex and we can only afford to touch the basics here so you'll need to read the documentation thoroughly. You can opt to either install InetUtils or use a Demon installer and utilise the AmigaUUCP bits included for the same purpose. Naturally the configurations will need to be changed to your own values but you'll have a good example template to work from. The configuration file essential for success can be found in Inet:usr/lib/config otherwise often known as uulib:config. If this is set up correctly, both the Demon AmigaUUCP software and the InetUtils SMTPpost will function well and send Email outside and also locally deliver it into the directory normally referred to as uumail:

Why is this all necessary? Most likely at the moment you use a dedicated Email package such as YAM to download your Email. Any user at your domain will be downloaded into YAM which isn't very useful since we need to direct some addresses to the listserver. With the Inet Utilities or AmigaUUCP software we can have the Emails appear in uumail:. For example, if you mail mat@<domain> then a file called 'mat' appears in uumail: Further mails to this user are appended to the file. Mail another user and another file of that name appears in uumail: and so on.

SMTP systems drive a sub program called 'rmail' to deliver mail to uumail:, since we don't have SMTP we need another way of doing this which is why AmiPOP and the like are not suitable. We can accomplish this with the use of a fantastic little utility written by the prolific programmer Oliver Wagner. 'Pop3get' not only downloads POP3 mail but also locally



▲ Here's the mailing list posting out a message to all of the subscribers on the list. This can take a long time and it must be done regularly to keep subscribers happy.



▲ The script which you will find on the FTP site and the CD-ROM, will automatically activate any lists you have configured.

delivers it to the correct user by checking the To: headers in the Email. Naturally it's on the CD and the FTP site too. An example of runningPop3get would look like this; (➔ means no return here)

```
Pop3get HOST=mail.u-net.com ➔
USER=bloggs PASS=mypass
```

The HOST is the pop3 server, user name is typically the same used to log on, likewise with the password. Voila, we can run a multi-mailbox and listserver capable system on a POP3 static account. The catch is, of course, that we need to get the mail from here into your Email package for your private mail. Fortunately most good Email software has an import function to read RFC mailboxes. Some packages such as AdMan and Metatool work directly on the uumail: files. On the CD and FTP site I've included a nifty little YAM ARexx script which imports any users we would like in YAM rather than UUmail. It could be used as the basis for a script for any other ARexx capable mailer. Read the start of the script in a text viewer for instructions on its use. On the CD/FTP site you'll also find a script for Miami which runs Pop3get every 30 seconds.

Tom's listserver

Tom Bampton's listserver can be found on the CD-ROM in the Wired World section and the FTP site. Pop into http://www.dvalley.demon.co.uk/listserv/ for the latest versions and information. Extract the archive to where you want the listserver directory created. Inside the listserver dir, there's a subdir called testlist. This is a complete example of a working mailing list which you can refer to by example when needs be. Create a new directory here and copy the entire contents including subdirs of TestList into your new directory. Here we'll work on our own mailing list configuration.

I recommend making some assign like Listserv: to the listserver parent directory so it's easy to refer to later. Normally the user 'listserv'or the like would process all requests for the mailing lists but Tom's listserver in the current revision requires command Emails sent to the list address itself with the commands in the subject line.

Inside the directory for our new mailing list, there's several sub directories. The Commands dir stores bolt-on scripts which can be activated by listserver from command Emails. We'll get onto that later. Relevant logging information will be stored in the Logs directory but the things which really need changing are the text files inside the Messages and Text dir. These are the responses that Tom's listserv will Email out for different reasons.

Dive in the deep end

The best way to learn which files do what is to dive into the deep end and hit Listserv's main configuration file. Thankfully this is nicely documented with examples so they need only be replaced by our details. The file itself is in the very root of the Listserv directory called ListServ.config

The SMTPserver is typically the same as your pop3 server and this is where outgoing Email will be sent to. The next setting 'MailCommand' is somewhat critical. There's an example for SMTPpost which you can use if you use the Inet Utils package. Again this will rely on certain keywords being set up in uulib:config to work or at least set as ENV variables. I recommend that you use the example SMTPpost and Inet Utilities package if you're unsure, though be sure to read the documentation for SMTPpost.

NewList is followed by the full name of the mailing list, usually inserted into addresses from listserv responses. 'Email' should be set to something like; 'My Mailing List <my-list@bloggs.co.uk>', this is the address postings are sent FROM. ErrorsTo will be the address that errors and bounces are sent to. Periodically you will need to examine this mailbox file and remove addresses from the mailing list which are unreachable for whatever reason.

Next follow an impressive collection of paths to the text files inside our mailing list directory. This is why I suggested that you create a Listserv: assign to shorten these paths. A tip here would be to use the find and replace function of your text editor to replace the default paths with your own, then you need not worry about incorrect paths. Retain the defaults that are shown but replace the front of the paths to Listserv:my-list/ where my-list is the name of the copy of the Testlist sub directory. You can, of course, change these but it may make things a little confusing if you deviate unnecessarily from the defaults.

Allow UnkPosts is a special configuration option that sets whether it will be possible for people not subscribed to the mailing list to send postings to it. It's a good idea to turn this off so that persons sending listserv command Emails with commands in the body of the Email, rather than the subject line, will not be send out to everyone on the list.

Skip the Digest settings except for the path. The NewCmd statements are a little complex so ignore for now and so we're finished with configuring the listserver!

Now all that's required to test is to run the listserver as follows;

```
Listserv:Listserv -c
Listserv:Listserv.config -d
```

See that the -c option specifies where the config file is and the -d switch dumps the contents of the config file, checking for any errors. Try this again with -h instead of -d so you can see the built-in help file. Now write an Email to your mailing list address and put HELP in the subject line. If everything goes OK, you should have a file by that name in uumail: Now runListserv again;

```
Listserv:Listserv -c
Listserv:Listserv.config -s ➔
uumail:my-list
```

'my-list' should be the name of the file which appears in uumail: when you mailed your mailing list. Listserv should find the request for help and Email a help file back to you. Of course you are also a local user so another file should appear in uumail: which would be your private mailbox. Remember that you need to import this into your mailer to read it.

This is a complex topic, we don't have enough space to document even a fraction of it in this tutorial. Hopefully this overview will have set you on the right path. If you require more help why not join CU Amiga's mailing list by putting 'subscribe "your real name"' in the subject of an Email to cu-list@cu-amiga.co.uk. See you there! ■

Mat Bettinson

Surf's up!

Free upgrades for Personal Paint users, a new Amiga webzine and a promise of 3D graphics to come. Stay online!



Net God speaks

Junk Email is a curse of the Internet age. Every time I log in to collect my Email I get some prat in America trying to sell me something. These messages are far worse than the dumb 'make money quick' schemes, because they demonstrate that seemingly legitimate businesses are misusing the Internet in a pre-meditated manner. If you want to stop it, one of first things you shouldn't do is bounce back the mail with a 10Mb file of rubbish attached to it. This does nothing other than choke up the Net further and the reply address is probably nonsense anyway. Your mailbomb could return to haunt you! Instead, ignore the mail completely or forward it to the site administrator. For example, if you get junk from AOL, send it back to abuse@ aol.com. Prevention is better than cure and more spam merchants will scoop up your Email address from a posting you made on Usenet. The best way to avoid this is to alter the Email address which appears in your posting slightly. This way Net heads will know how to change it and spam droids won't.



Cloanto Get Online

Cloanto are already well-known for their excellent Personal Paint program but the current release looks to be the most important yet. Recognising that many Amiga users are into HTML and creating graphics for their Web Pages, Cloanto have overhauled Personal Paint to make it Internet friendly.

The latest release, which you can check out on the superb Cloanto Web site, features all the tools you need for creating GIF animations, as well as support for PNG, transparency effects and progressive format files. Perhaps most impressive of all is the automatic Image Map creation system, which puts the Amiga right at the forefront of Web design. News off the wires is that Personal Paint 7 is now free of the limits imposed by Chip RAM. Chip RAM may be limited to 2Mb but Personal Paint doesn't know this.

Cloanto's Web Site is at: http://www.cloanto.com/ and it's very easy to use: mostly because it looks as though it's part of the Amiga Workbench. Also, check out our review in the January issue.

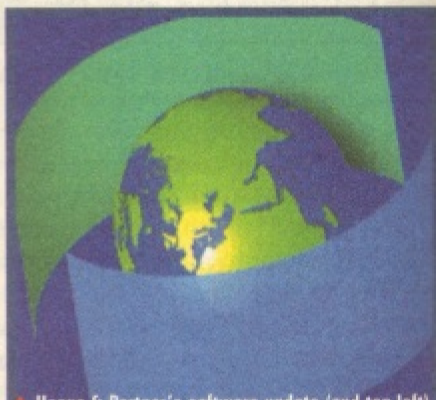
VORMEL Now A Possibility

Many people think that VRML could be the future of 3D graphics, as it combines a structured format for models with real-time display over the Internet. PC users have been able to mess around with VRML for years but now there's a chance that it could be coming to the Amiga in the shape of VORMEL.

VORMEL is a plug-in for IBrowse, which promises to display VRML 2.0 files. At the moment it's still in the pre-beta stage but you never know: by the time you are reading this it could be available for download. Check out the latest news at the home page, http://www.efd.lth.se/~d94sz/vormel/

Hey You Over Lair!

If you're looking for something to read while you wait for your monthly CU Amiga Magazine to appear in the newsagents or plop onto the doormat, try The Lair!. The Lair! is a new Web-zine written by Amiga fanatic DeepBlue (aka Bluey). There are plenty of features including an article on hacker Kevin Mitnick and some opinions, gossip and chat sections which are well worth reading. Check it out at: http:// www. thenet.co.uk/ ~bluey/main.html



▲ Haage & Partner's software update (and top left).



▲ Bluey's The Lair – one to watch out for.

Top Web Sites

The Amiga community is alive and well in Cyberspace and there are many excellent Amiga related sites which you should check out when you are next online. If you aren't all signed up with an Internet provider yet, make a note of these addresses and pop into your local Cybercafe for a cup of espresso and a surf.

Haage and Partner:
Amiga software development company, responsible for such programs as StormC and ArtEffect. See for yourself what is going to happen next on the Amiga software scene. Http://ourworld.compuserve.com/homepages/ Haage_Partner/E.htm#news

The Hardware Book:
Created and maintained by Joakim Gren, this is an essential resource for anyone who is into DIY and the Amiga. Http://www.blackdown.org/~hwb/hwb.html

CU Amiga Magazine:
Your favourite magazine has its own site and you'll find pictures of the staff and links to other top Amiga sites. Make it your first port of call. Http://www.cu-amiga.co.uk



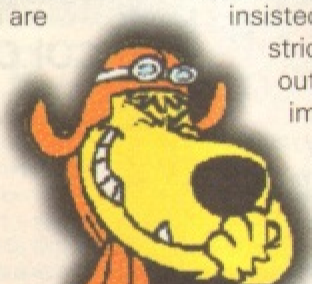
Surf of the Month

Fun and games: that's all anyone seems to want these days. And where's the one place you're guaranteed to find the above? The Net of course.

As far as Amiga demos go, State Of The Art by Spaceballs is one of my all time favourites, possibly only equalled by the brilliant Jesus on Es demo by LSD. So, I was drawn to the **Spaceballs Home Page** where you can also brush up on your demo scene knowledge, read the history of Spaceballs and download all their classics, the most notable being State Of The Art of course, Wayfarer and Nine Fingers. The list of external links points to other Amiga demo groups and 'sceners' and can make for some very interesting surfing.

Pining for the old days isn't good for you I know, but I decided on one quick visit to an 'Amiga Shrine' type site and came up with **The Amiga History Gallery** which is a simple one-page affair. It contains pictures of all the main Amigas from the A1000 up to the A1200 and A4000 but disappointingly no textual information to accompany them. Of note there are some pictures of a very rare sight indeed: Commodore advertisements, which are 'interesting' to say the least.

Advertising was never a problem for the now classic Amiga game, Worms, and there is no shortage of unofficial sites too. I was spoilt for choice but **The Land of Worms** site has plenty to offer with Worms levels to download, hints, tips, rumours (everyone loves a good rumour) and level codes. The site also includes a step by step guide to creating your own custom levels. Apparently the whole site is due for an upgrade soon so keep an eye on it.

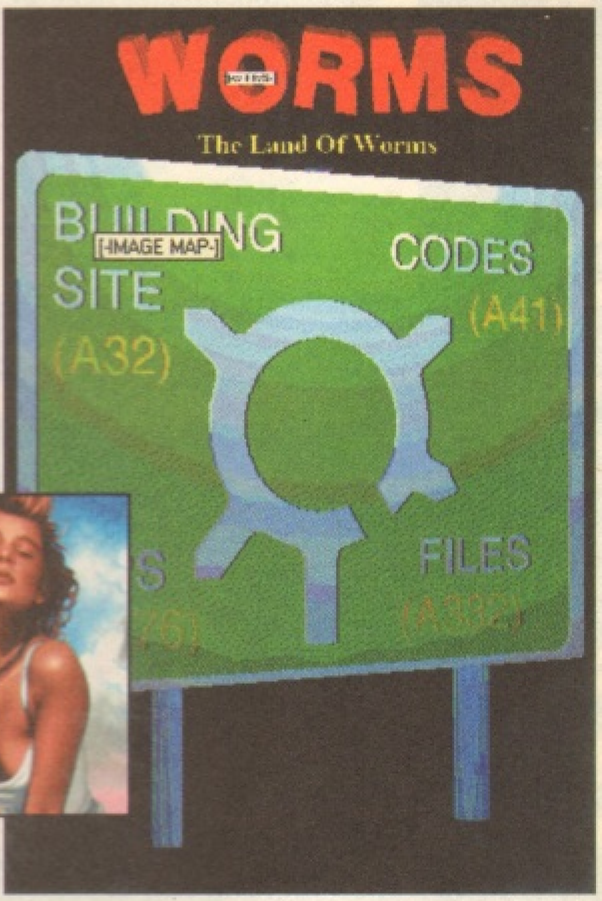


Keeping with the gaming theme for a moment **The Amiga Nutta Home Page** has to be my favourite site of the month. It is full of enthusiasm, fun and useful stuff concentrating on Amiga games only and covers the issue in a big way. There is a huge games release schedule, previews, reviews, links and also a massive archive of hard disk installers laid out in alphabetical order and ready to download. If that's not enough for you, you can also vote for your all time favourite game and read the latest gaming news which includes details of an Amiga version of Quake. Stick Amiga Nutta's URL in your hot list and smoke it, it's one hullava site.



At the other end of the scale of Amiga software, **ACES, (The Amiga Coding Excellence Scheme)** aims to build a collection of the very best Amiga freeware and just as importantly promote its use. Originally ACES insisted that every program had to adhere to strict coding practices, but this turned out to be a rather difficult ruling to implement, so now all it takes to get a program listed is for an appreciative user to propose it. At the moment there are only five programs listed, ISN Newsreader, MCP, YAM, FMS and Tool Manager, all good solid programs in my humble opinion.

ACES needs your help to increase the tally, so if you have a favourite freeware program go tell them about it, help a worthy cause and maybe give the programmer a welcome ego boost. Talking of programming, I happened to stumble onto a new-ish programming language in development at the **Bubble Home Page**. According to the introduction text, "it is a quasi-visual programming language. Everything in Bubble is done by manipulating trees of objects, largely by drag and drop". To me it sounds like an attempt to emulate Visual Basic.



My last port of call this month was a brand new site set up specifically to keep track of and display the **Aminet Charts**. These charts reflect the most often downloaded archives from Aminet.

This may seem a rather trivial matter to some of you but it can be a very useful resource of information to Amiga software developers, knowing what the public want is the key to successful publishing and these charts reflect exactly that. The charts themselves are arranged nicely in tables with all the relevant links to the archives in place. The site was only started on February the 7th so the charts only go back that far, but give it a few months and this site will become a little treasure trove to those concerned with such matters.■

Steve Bye

Those sites in full

The Spaceballs Home Page
`http://frodo.hiof.no/~toma/`

The Amiga History Gallery
`http://www.giga.com.ar/randy/amist.html`

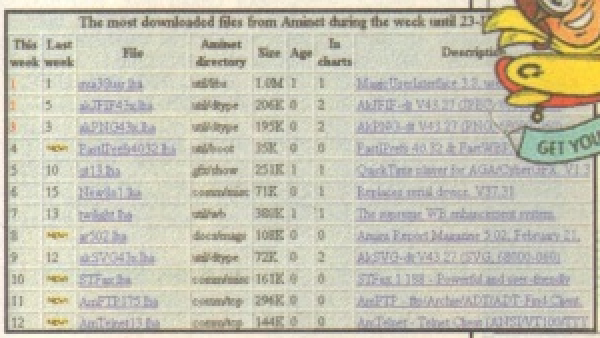
The Land Of Worms
`http://www.csv.warwick.ac.uk/~csuxf/wormspage.html`

The Amiga Nutta Home Page
`http://www.nutts.demon.co.uk/`

ACES, (The Amiga Coding Excellence Scheme)
`http://www.ee.surrey.ac.uk/Personal/ee61cj/`

Bubble, The Language.
`http://members.aol.com/ennals/bubble.html#intro`

Aminet Charts.
`http://www.geocities.com/SiliconValley/Heights/8751/`



The most downloaded files from Aminet during the week until 23-

This week	Last week	File	Aminet directory	Size	Age	In charts	Description
1	1	mui38usr.lha	util/libs	1.0M	1	1	MagicUserInterface 3.8
2	5	akJFIF43x.lha	util/dtype	206K	0	2	AkJFIF-dt V43.27 (JPEG
3	3	akPNG43x.lha	util/dtype	195K	0	2	AkPNG-dt V43.27 (PNG
4	NEW	FastIPrefs4032.lha	util/boot	35K	0	0	FastIPrefs 40.32 & FastWB
5	10	qt13.lha	gfx/show	251K	1	1	QuickTime player for AGA/CyberGFX V1.3
6	15	[illegible]	comm/misc	71K	0	1	Replaces serial device. V37.31
7	13	twilight.lha	util/wb	380K	1	1	The supreme WB enhancement system.
8	NEW	ar502.lha	docs/mags	108K	0	0	Amiga Report Magazine 5.02, February 21,
9	12	akSVG43x.lha	util/dtype	72K	0	2	AkSVG-dt V43.27 (SVG, 68000-060)
10	NEW	STFax.lha	comm/misc	161K	0	0	STFax 1.158 - Powerful and user-friendly
11	NEW	AmFTP175.lha	comm/tcp	294K	0	0	AmFTP - ftp/Archie/ADT/ADT-Find Client
12	NEW	AmTelnet13.lha	comm/tcp	144K	0	0	AmTelnet - Telnet Client (ANSI/VT100/TTY



CU Amiga Classifieds

Amiga Mice

Replacement Mice	£6.95
MegaMouse 400	£9.95
MegaMouse Plus (3 Button)	£10.95
Optical Mouse	£29.95
New Golden Image TrackBall	£19.95
Pen Mouse (ideal for CAD)	£12.95



Ram Boards

RAM CARDS A1200

A1200 with clock and 4Mb	£49.00
A1200 with clock and 8Mb	£65.00
A1200 with clock & 33Mhz FPU	£80.00

RAM CARDS A500/500+ & A600

A500 512K w/o clock	£15.00
A500+ 1Mb w/o clock	£20.00
A600 1Mb w/o clock	£20.00
A600 1Mb with clock	£30.00

Controllers

AlfaPower Hard Drive controller A500	£99
AT-Bus Hard Drive controller A2000	£69
Oktagon 2008 SCSI controller	£99
Multiface III	£79
PCMCIA Controller for CDRom for A1200	£69

Spider

NEW MULTI I/O CARD

FOR AMIGA 1500/2000/4000

Active 8 port high speed serial card. Multiboard Support 57600 Baud rate on all channels simultaneously. **£299**

New AlfaQuatro Buffered Interface

Specially made hardware and software. Allows 4 ATAPI devices, ie, 2 IDE hard disk & 2 IDE CD Rom to Amiga 4000 internal IDE controller, through Alfapower on Amiga 500/500+ and possibly Amiga 1200, comes with full IDE Fix software **£59**

Joysticks & Joypads

Amiga Joysticks	£9.95
Amiga Joypads	£9.95

Speakers

Multi Media Speakers 100 watt (pmpo)	£30.00
Multi Media Speakers 240 watt (pmpo)	£45.00
Multi Media Speakers 300 watt (pmpo)*	£59.95

*** 3D surround sound**

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b) Use Internal IDE port with AlfaDuo if you have 2.5" Hard Drive (will be with full IDEFIX software).

c) Use Internal IDE port with AlfaQuatro buffered interface if you have 3.5" Hard Drive (will be with full IDEFIX software).



All CD ROM drives have play CD facility. Audio connection at front as well as at the back. Metal casing.

	External A600/A1200	Internal A1500/A2000	External* A500/A500+	Internal A4000
Quad speed CD ROM for	£149.00	£119.00	£129.00	£109.00
Eight speed CD ROM for	£169.00	£139.00	£149.00	£129.00

*(for A500/A500+ Alfapower hard drive controller and Hard Drive is required). A1500/A2000 supplied with IDE controller & software. A4000 supplied with AlfaQuatro interface & Full IDE Fix software.

Floppy Drives



External Floppy Drive for all Amigas	£39.95
Internal Floppy Drive A500/500+	£35.00
Internal Floppy Drive A600/1200+	£35.00
A-Grade Double Density box of 50 disks *including colourful labels*	£13.00

IDE Hard Drives

HARD DRIVES + AT-BUS CONTROLLER FOR AMIGA 500(+)/A1500/A2000/A3000/A4000

AT-Bus hard drive controller	**£69.00**
Alfapower hard drive controller	£99.00
Alfapower-640 640Mb hard drive	£199.00
Alfapower-1.2G 1.2Gig hard drive	£259.00

Other sizes please ring



IDE 2.5" Hard Drives

IDE 2.5" Hard drives come formatted and installed with Workbench. Cable, screws, software and instructions supplied. *(please ring for availability)*

60Mb	£59.00	250Mb	£99.00
80Mb	£69.00	340Mb	£109.00
★120Mb	£70.00★	420Mb	£119.00
170Mb	£79.00	540Mb	£129.00

IDE 3.5" Hard Drives

IDE 3.5" Hard drives come formatted and installed with Workbench. Cable, screws, software and instructions supplied. *(please ring for availability)*

640Mb	£99.00	1.7GIG	£179.00
720Mb	£110.00	2.1GIG	£219.00
840Mb	£125.00	2.5GIG	£239.00
1.0GIG	£159.00	3.2GIG	£Call
★1.2GIG	£165.00★	3.8GIG	£Call

Memory

4Mb Simms	£20.00	16Mb Simms	£60.00
8Mb Simms	£30.00	32Mb Simms	£150.00

Scanners

800 dpi	£79.00
800 dpi with full OCR (last few so hurry)	£99.00
400dpi with Migraphs acclaimed Touch-Up, Merge-it and full OCR	£119.00

Miscellaneous Products

44pin 3 connector cable	£10.00
44pin 2 connector cable	£5.00
40pin 3 connector cable 90cm	£10.00
AlfaDuo 44pin to 40pin Interface & IDE cables	£20.00
AlfaQuatro 3x40pin buffered interface & IDE cables	£39.95
DD floppy disks (50) *including multicoloured disk labels*	£13.00
DD floppy disks (100) *including multicoloured disk labels*	£25.00
3.5" Hard Drive Kit for A600/1200 *+ Install software*	£15.00
Colourful Mouse Mat Animal Jungle design and Dinosaur design	£5.00
Optical Mouse Mat	£5.00
2 in 1 Scanner/Mouse Pad *Can be used as a memo pad*	£5.00
Contoured Wrist Pad	£3.00
Plain Wristrest	£2.00

CD Cleaners - 1/2 price

CD Rom Cleaner	£3.00
Automatic CD Rom Cleaner *(battery powered)*	£10.00
Laser Lens Cleaner	£4.50

Accelerator Boards

1230 33Mhz + 4Mb	£135.00
1230 33Mhz + 8Mb	£145.00
1230 33Mhz + 16Mb	£175.00
1230 50Mhz + 4Mb	£179.00
1230 50Mhz + 8Mb	£189.00
1230 50Mhz + 16Mb	£219.00

All prices include VAT. Please add £3.50 P&P for items under £30.00, £5.00 for items over £30.00, £8.00 P&P for Scanners, Speakers & Hard Drives, £10.00 courier for next day. Tax Free Export Orders Welcome.

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FAQ

Frequently Asked Questions

You might find it hard to get up in the morning but how do you think it feels for your Amiga?

Q. What do you mean?

A. Well, the first thing your Amiga has to do when it starts up is a whole bunch of hardware tests. You might see the screen changing colour as various items are checked out such as the availability of memory, communication with the keyboard and so on. If there is something wrong, the Amiga may freeze. For example, if you have a trapdoor expansion card which isn't inserted properly, the Amiga will freeze with a green screen. Or, for example, if the keyboard is malfunctioning, the caps lock light may blink.

Q. What about the 'secret menu'?

A. When the hardware tests are complete, the Amiga prepares to look for a device to boot from: that is, load some data from disk. Floppy disks, hard disks and even CD-ROMs will be searched. However, on an A1200 or A4000 the Amiga allows the user to interrupt this process by holding down the two mouse buttons. If this is done, a new screen display appears offering several choices.

First of all, you can decide to boot the Amiga with or without a startup-sequence. If you choose 'without', Workbench will not be loaded up and you'll end up with a Shell window and not much else.

It's also possible to obtain a list of all the Amiga devices which are present, for example, hard drives and floppy disks. You can then select which one you wish to boot from. As the hard drive partitions are listed separately, this makes it possible to have different configurations on each. For example, boot from HD0 for the most common system, or HD1 for something more fancy. Devices can also be temporarily switched off, and won't appear if the Amiga is reset.

From this menu, the default graphics display mode can be changed (PAL or NTSC), and the features of the AGA chipset reduced to the ECS or original settings. This feature maintains compatibility with older software.

Q. What's next?

A. Next the Amiga tries to find something to load data from, starting with the floppy disk drive. The first data which it reads tells the Amiga what to do next. For example, a Workbench floppy disk or hard disk will tell the Amiga to go ahead and load the Workbench. If a game has its own private loading routines it's possible for a game to load without loading the operating system first. This is why the disks which have games which do this will appear on the desktop as 'NDOS' and cannot be read. The Amiga will usually try and boot from the following devices in this order: floppy disk, RAD, hard disk. This means even if there is a hard drive present, a bootable floppy disk will take priority. Likewise, even if there is a hard disk and floppy disk present, if the RAD was used then the computer will boot from it.

If there is absolutely no bootable device ready, the Amiga displays the Kickstart animation (the 'purple screen') and waits until there is something to boot from. If the floppy disk drive is empty, it will continue to click as it waits for a disk to be inserted.

Q. What's RAD again?

A. RAD is a special version of the RAM disk. Unlike the RAM disk, RAD survives a warm reset – it will survive the 'warm' CTRL-Amiga-Amiga reset but it won't survive the Amiga being switched off and switched on again. It can be useful because the Amiga will boot from it if it has been formatted properly. For example, if you start RAD (enter MOUNT RAD: at the Shell – check that you've copied the RAD: device from the Extras disk) and copy a Workbench floppy disk to it, then after a Warm Reset the Amiga will start up in a few seconds. You can switch the RAD off either by turning the Amiga off for a few seconds or by deactivating the RAD device from the 'secret' startup menu.

There are several replacement RAD devices available on Aminet, offering more features, better memory management and more reliability. If you are interested in experimenting with RAD, you should search them out.

Q. How does the operating system load?

A. A key part of the Workbench loading process is that a file called 'startup-sequence' which is in the S: directory is loaded and executed. This is a plain text file, containing a list of AmigaDOS commands. These commands perform various configuration duties, such as setting up the keyboard for the correct GB keymap (so when you press the £ key, you get a £ and not a #). Another command will patch the operating system to fix any bugs (this is the 'SetPatch' command). A lot of what happens though is to do with creating directories in the RAM disk and copying the user-defined preferences. Various 'Paths' are created: this provides shortcuts to commonly used directories and files.

If a file called 'user-startup' is found, then this file too is loaded and executed. This is the file in which you can put your own special commands, paths and utilities. When you install software, it's common for the install routine to add some Assign statements (paths) to the user-startup file.

Back in the startup-sequence, when everything else is done, the 'LoadWB' command starts and the initial Shell window is closed. This produces the screen display we all recognise, with disk icons down the left of the screen and the mouse pointer ready for action.

Q. Is that it?

A. Not quite. Various other bits and bobs are happening too. Any AmigaDOS devices in the DEVS: drawer are started – for example, you may keep the CrossDos device PCO: here, or a CD-ROM driver CD0:. This allows these devices to be always present when Workbench loads.

In order to make it easy to start programs every time Workbench loads, there is a special drawer called 'WBStartup'. Any programs which are placed in here will be started, and so it's a great place to drag all your favourite Commodity programs such as Blanker. This way you can be sure that all the utilities you need will be ready for you. In fact, given the huge list of what actually happens when the Amiga is switched on, it's quite amazing that it doesn't take longer than it does!

John Kennedy

Masterclass

The Amiga Workbench was always ahead of its time and still has many programs and utilities which other platforms have yet to beat.

Your Amiga comes with many powerful utilities and programs already installed to make your life easier. So many in fact, that there are often a number of ways to do the same thing. We've seen how the Workbench environment and the Shell window can be used to the same end but there are plenty of other tools at your disposal as well. Let's take a look at them shall we? First ...

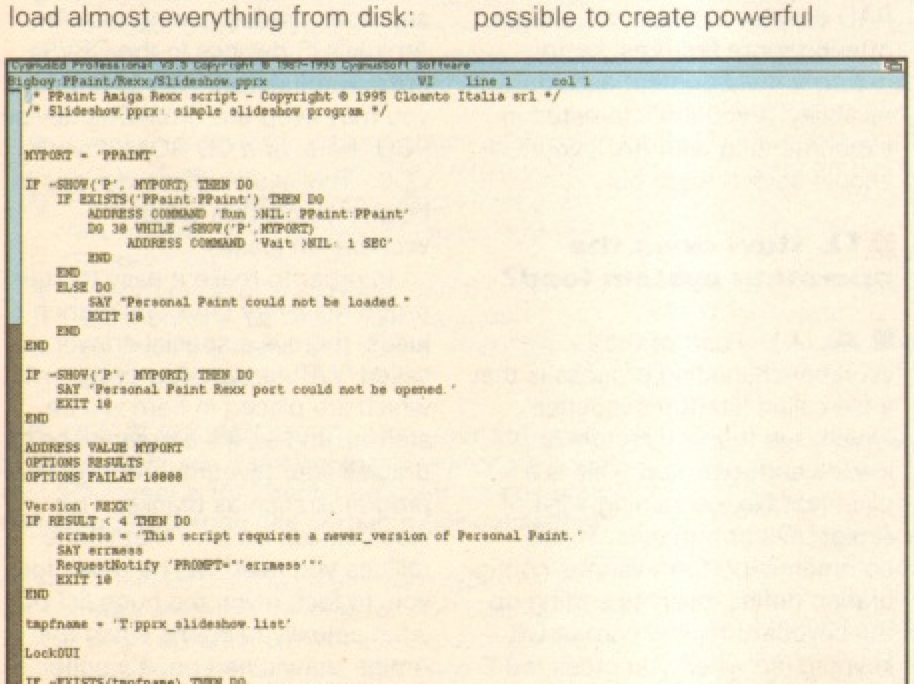
ARexx

Back in the old days, computers always had programming languages built into them. The language was usually a version of Basic, slightly altered to take into account the particular graphics and sound features of the individual make of computer. Ah, those were the days ... a dozen computers to choose from, loading programs from cassette, 16K of memory and fake keyboards. In these enlightened days, of course, computers have proper operating systems and load almost everything from disk: including programming languages.

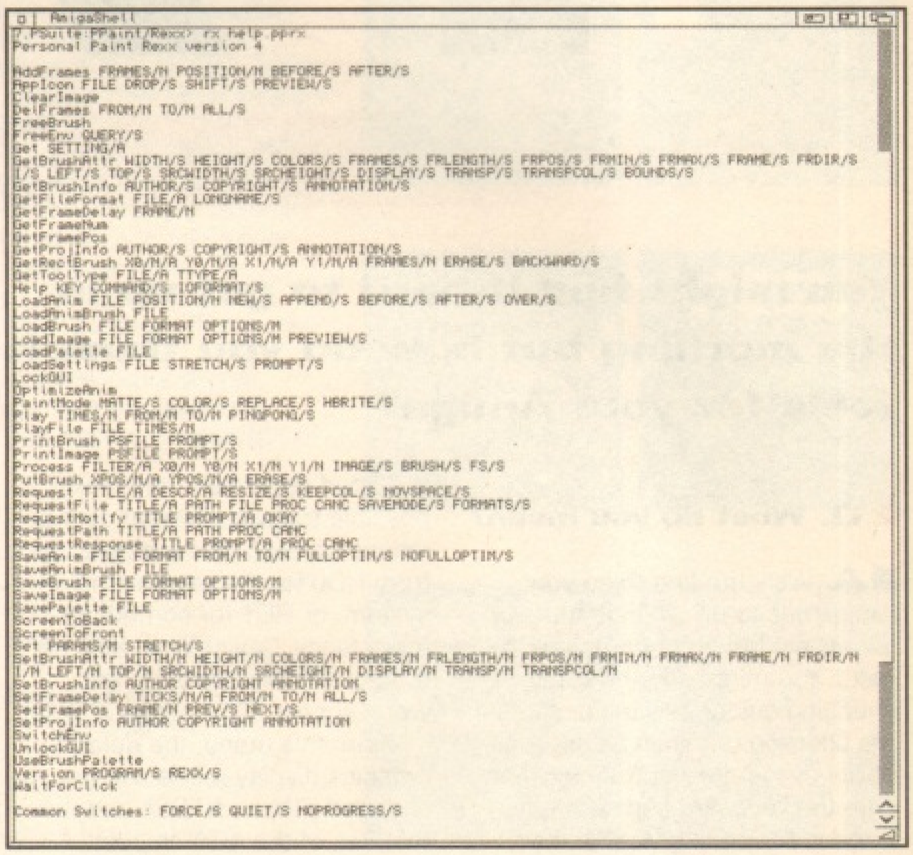
When the Amiga first appeared, it came with a version of Basic (called, excitingly, AmigaBasic). It was slow, prone to crash, offered staggeringly poor support for the Amiga's hardware and perhaps most surprisingly of all, was written by Microsoft. It was soon junked.

In its place, Amigas now come with ARexx built in, an Amiga version of a language called Rexx. Unlike the older computers and their Basic, modern Amigas use a sophisticated multitasking operating system. It can run many programs or 'tasks' at once and an ARexx program will be just one of these tasks.

What makes it unique, is that ARexx can communicate with other programs which are currently running. For example, if a graphics program such as Personal Paint (version 6 or later) is running, an ARexx program can cause it to perform certain functions automatically. This makes it possible to create powerful



▲ This is a snippet from a typical ARexx program. Remember, it's nothing more advanced than a plain text file.



▲ Here's what happens when you run an ARexx script supplied with Personal Paint – you get a list of all the other ARexx commands available. If this was on your Amiga screen you would actually be able to read it.

'batching' commands, such as performing a filter effect on every frame in an animation. Instead of having to deal with each frame by hand, a suitable ARexx script can be written to load the animation and process each frame in turn, before saving it.

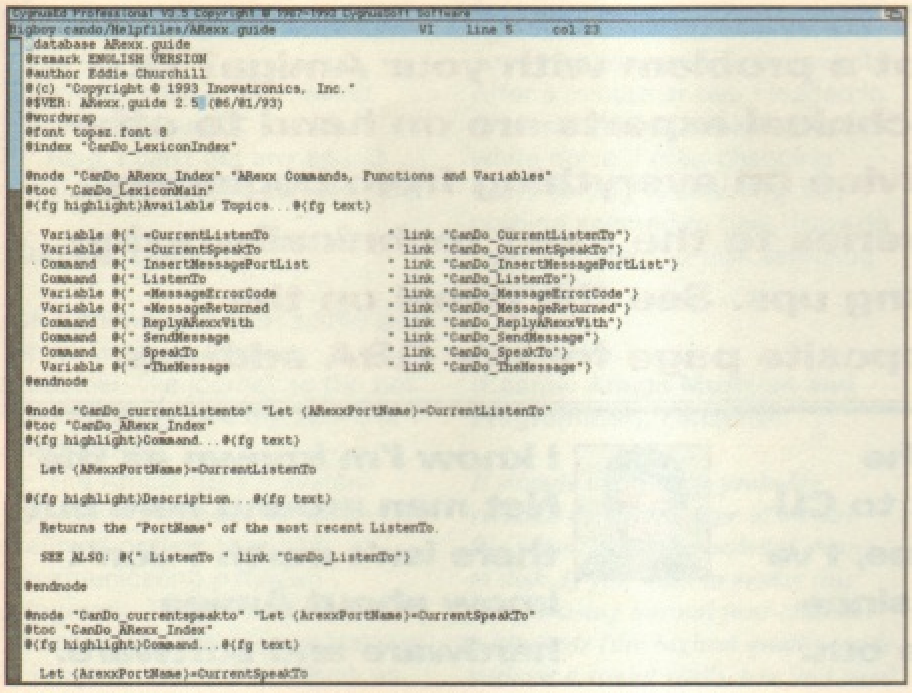
Of course, it's never quite as easy as that. Although programs such as Personal Paint come with plenty of example scripts, ARexx is still quite a complicated programming language in its own right. If you have never written a program in ARexx before, it can be quite a daunting process. The key is to realise that the application program itself adds new commands to the ARexx system. For example, Personal Paint may add commands such as 'PlayFile', 'LoadImage' and 'WaitforClick'. Another program, say, CanDo, may add command such as 'SpeakTo' and 'ListenTo'.

So, although ARexx can be used as a stand-alone programming language, it can be expanded depending on which applications are currently running. Once you learn the core of ARexx, the extra bells and whistles which can be added are easily understood, or they should be, if the documentation is any good.

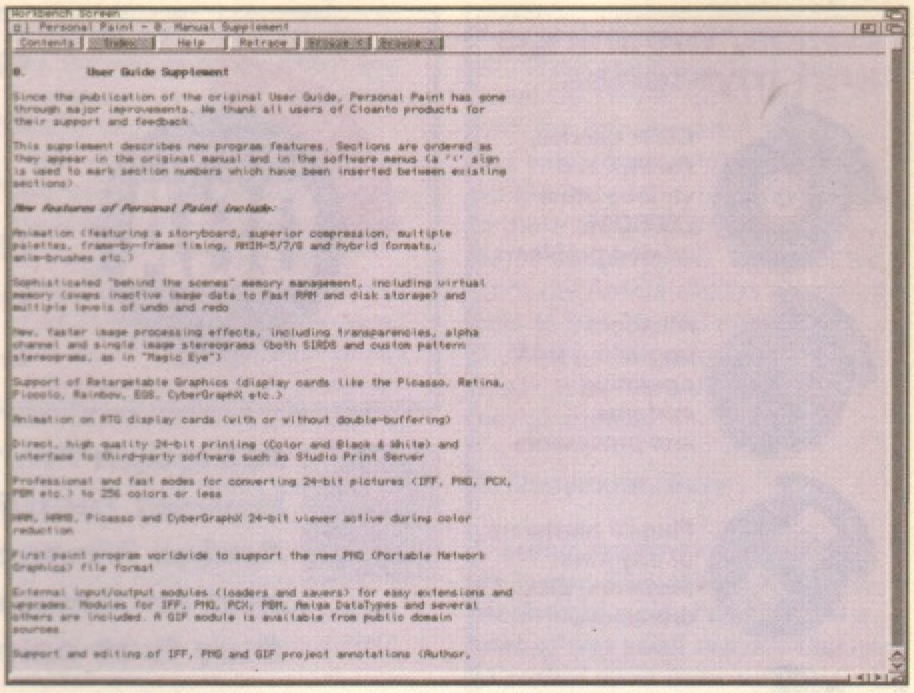
ARexx is primarily a Shell-based programming language. An ARexx program is any ordinary text file created with Ed, GoldEd or CygnusEd, and it's started using the RX command either from the Shell or from within an application. There are various libraries available which will provide an ARexx program with the ability to put up requesters, windows and buttons. It's possible to write programs in ARexx which look like any other Amiga application. And that's ARexx.

AmigaGuide

To standardise help files and other documents, the Amiga comes bundled with the AmigaGuide system. You've probably used AmigaGuide documents dozens of times, as they are often used to provide instructions for application programs: you can recognise them easily with their familiar window, regular buttons (Contents, Index, Help



▲ An AmigaGuide document is nothing but plain text, with a few codes added here and there ...



▲ ... but use the AmigaGuide reader program the codes cause links and different text styles to be displayed.

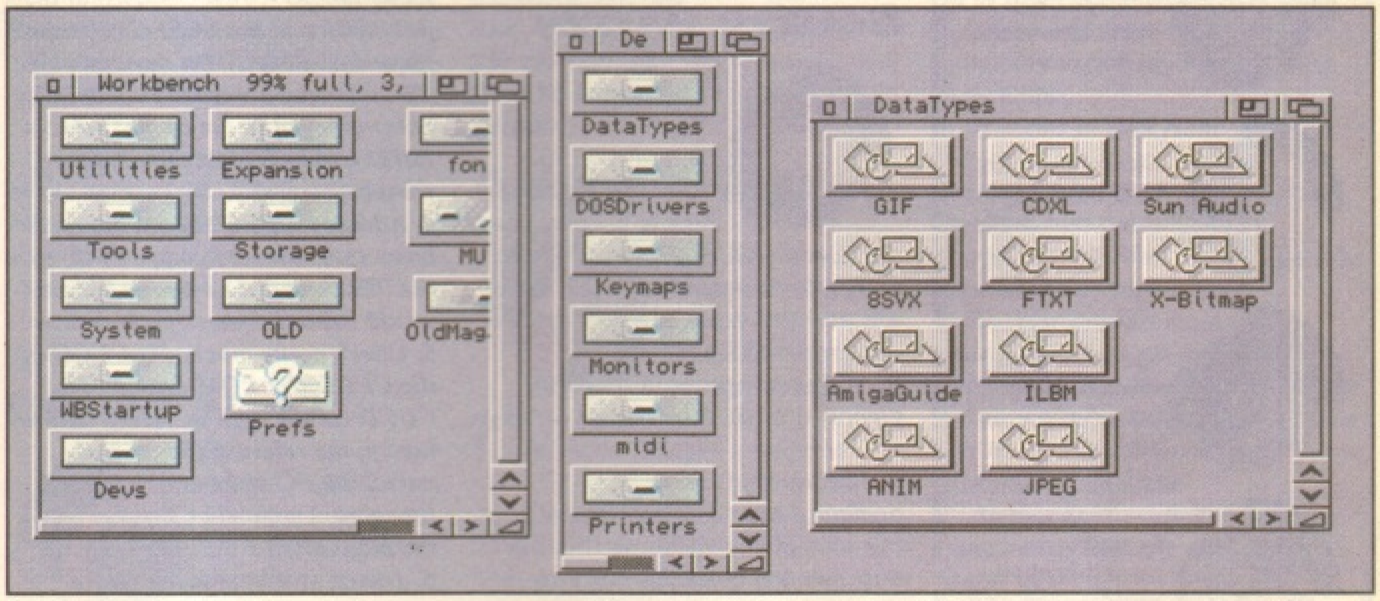
and so on) and blue buttons for clicking. AmigaGuide has greatly improved the standard of on-line documentation.

The real advantage of AmigaGuide is its flexibility. Not only can it be used to provide a simple (or even complex) hypertext document but it can also trigger other actions. For example, the Aminet series of CD-ROMs uses AmigaGuide to provide an easy-to-use index system and front end. You can click your way through list after list and when you find the file you want, the AmigaGuide will even trigger an archiving program to copy the programs to the RAM disk.

AmigaGuide files can even be written 'on the fly' as they are needed. When you perform a search using the Aminet CD Find program, you'll be presented with a custom AmigaGuide document, created just for you. There are plenty of other applications too: for example, a Internet tool called Gopher has been written which uses AmigaGuide for its user interface.

Like an ARexx program, an AmigaGuide document is a plain old text file. It contains a few special codes which are inserted at various points to produce different text styles and links. Again like ARexx, it's what you do with the file which makes it special. In this case, if you read the file with the AmigaGuide program (often achieved by setting the file's Tool Type) then the special codes are translated into links and boxed-out text.

In many ways AmigaGuide is very similar to HTML (Hyper Text Mark-up Language), the set of codes and tags which are used to create pages for the World Wide Web. HTML is slightly more flexible however, as it can incorporate graphics very easily into pages. So that's AmigaGuide sorted then.



▲ Datatype files normally live in the 'Devs' drawer on the Workbench, although they usually need to be installed rather than simply dragged and dropped.

Datatypes

A Datatype provides a way of allowing existing software to understand new file formats as they appear. If you like, it provides a filter so that an application doesn't have to contain extra programming to be able to decode dozens of different file formats. Instead, the application only needs to understand how the Datatype provides data.

A good example is the MultiView program which comes with Workbench. This application can open many different files because it makes use of DataTypes. With the supplied DataTypes it can load text files, AmigaGuide files, IFF images, Anim files, sound samples – the list goes on. There are many Datatypes available in the public domain and from Aminet for file formats such as GIF and JPEG.



▲ Dataype support is included in many programs: here's Personal Paint about to load a JPEG, GIF or any other file we have Datatypes for.

This is one way in which applications such as Personal Paint can be updated: rather than rewrite the entire program, only a new Datatype is required.

Take some time to experiment with some of these features. You'll find that they can greatly increase the usefulness and power of your Amiga. ■

John Kennedy

Logos, meanings and mysteries:

CD32 queries, ParNET and various other CD-ROM-related problems.

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Everything you need answering about the Internet

Not everything fits into a pigeonhole, but anything you like fits in here.

Q&A

Got a problem with your Amiga? Our technical experts are on hand to offer advice on everything from beginners' queries to the most technically-taxing hang ups. See the panel on the opposite page for our Q&A address.



Although I'm the newest recruit to CU Amiga Magazine, I've had an Amiga since they first came out.



I know I'm known as the Net man around here but there isn't much I don't know about Amiga hardware and software.

Scuzzy wuzzy

1. I'm thinking of buying the SCSI-2 expansion for my Blizzard 1230. First I'd like to know if I can use my friend's SCSI-2 CD-ROM. Her computer is a Compaq 486 laptop and the drive is an external Panasonic KXL-D740.
2. Is 4x enough or is it worth paying the extra for an 8x or a 12x?
3. I know that using SCSI devices, you need a terminator at the end of the cable. Is this built into the devices or is it something which can be bought at a local computer shop?
4. Will adding an FPU to my board cause the majority of software to hang up?
5. Are CD-ROM drivers available on the CUCDs or via PD/commercial suppliers?
6. I've noticed on my boot menu that my computer thinks that my hard drive was formatted as a SCSI device, when it is actually an IDE. I've not had any problems with it but is it worth reformatting as IDE?

James Orton, Dorset.

1. All SCSI-2 devices should work on the Amiga via a SCSI-2 connector just so long as you have driver software for it. Your friend's CD-ROM should work fine.
2. 4x is certainly 'enough'. Going for a faster drive will mean discs that open quicker on Workbench and make programs load faster but 4x drives are pretty fast. Faster drives are a luxury, though a pleasant one.
3. Most SCSI devices have built in termination, either via a switch or set by jumpers. Just ensure that the final device in the SCSI chain is set for termination. Some devices with 'through' ports need a SCSI terminator plugged in the output port. These can be bought from most computer stores.
4. Adding an FPU should have little impact on software compatibility; the '030 processor on your Blizzard would cause far more problems.
5. Check pretty much any CUCD in the CUCD/CD-ROM drawer. The CUCD can be read in your friend's laptop, the relevant files copied onto 720k PC disks and then read into your Amiga via Crossdos (read the manual!).
6. James, you have unearthed a source of constant puzzlement to many. IDE and SCSI are interface types. You cannot format a drive as one or the other. It is perfectly normal for your drive to be identified as a SCSI device, they all are. Don't let it worry you!

Useless-startup

A couple of problems that I need help with:
1. I have bought a few programs which, when I attempt to install them to hard drive, cause the computer to inform me that it can not find DH0:, although many other programs work fine without giving me this error. Is there something I can do about this?
2. I have tried to access the User-Startup by using Shell but have had no luck. Every time I try to edit it, it appears to be empty. I have tried adding a few assigns to it and saving it again but the only result is that another user-startup appears on the workbench and I now have two. Also, when I try to click on it from Workbench, a window appears asking me to enter a command. I am typing in 'ed user-startup'. Is this correct?

John Robinson, Hartlepool

1. This is one of those questions that there may be several answers to but we guess you may be having problems with some badly written older software. DH0: is the default name of hard drives on the Amiga but they can be called anything you like. A lot of people call theirs hd: or hd0: or whatever.

A few years ago, many installers assumed your hard drive was called dh0:. If it wasn't, the installer got lost. If this is the case, open a Shell, type "assign dh0: hd0:" (or whatever your drive really is called), then try installing as before and it should work.
2. When you type in 'ed user-startup', the computer isn't finding the file, so it starts editing a brand new file called user-startup, which is why it is empty and why there are two such files when you save it.

There are two possible reasons for this. One is that you are not typing in the file name exactly as it appears but what I suspect is happening here is that you are not telling it where to find the file. User-startup resides in the 's' directory, and unless you have previously moved to that directory after opening your Shell with a 'cd s:' command, you should type 'ed s/user-startup' so that the computer looks in the correct directory.

A lost envarc

I have an Amiga 1200 with a hard drive. When I try to alter the settings in preferences, I can't save

the changes. I get an error message saying:
"Error Accessing file EnvArc: Object not found".

Also, I can't get any sound from my computer, can you help?

Corinne, London

OK Corinne, don your scuba gear as we go on a Jacques Cousteau-like journey to the bottom of the arcane mysteries of the ENVARC.

The Amiga uses a system called Environment Variables for defining preferences and communicating between programs. These variables are simply small text files containing a piece of information (such as what screen palette to use), and are stored in the ENV directory, which is in RAM:

One of the first lines of your startup sequence should read "c:copy envarc:#? ram:env/ all quiet." What happens here is that the information is being copied to your ENV directory from your ENVARC or environment variable archive. This is where permanent changes to your preferences will be stored. ENVARC: is the name the computer gives to the directory Env-Archive, which can be found in your Prefs drawer.

My guess is that in your case the ENVARC drawer and/or its contents have been moved or deleted, in which case you must either find them and put them back, or replace them by copying them from your Workbench floppy into the Prefs drawer on your hard drive.

No sound, huh? Have you plugged a phono lead from the red and white phono sockets on the back of your Amiga to the red and white phono inputs on your hi-fi amplifier? It really is as simple as that.

Direct to disk

I am experiencing a small problem with the excellent OctaMED SoundStudio you gave away with the March issue. I have used OctaMED v5 for a while and got used to writing music with only four or five tracks because of sound quality but OctaMED SoundStudio came out with its 64 track direct to disk mixing and I thought "Great, I can add so much more, including easier stereo effects."

So to cut a long story short, I took one block, set up the mixing parameters exactly as it says in your magazine and away I went. After a minute or two I loaded in my new sample but all I got was white noise. I tried changing every setting I could find, but nothing seemed to help. How do I get the direct to disk sampling to work?

Alan Ferin, (Cosmic Amiga Musician and Programmer), Penzance.

It sounds like you've probably selected the wrong type of output file when you've recorded the song to disk. If you want to replay this sample using normal four channel 8-bit mode (the highest quality mode without a sound card), you will need to select 'Disk 8-bit' from the Mixing options, and set the Mixing Frequency to no more than 28,000 (try a mix rate of 24,803 which will replay at normal speed when played on note G-3).

You will also need to select 8SVX as the output type (this is another name for 8-bit IFF). When you want to combine these on-disk recordings, switch back to four channel mode from the Song Options section.

CD or Net?

I've had my Amiga 1200 for nearly a year and I am thoroughly enjoying being back on the Amiga scene after a considerable absence (about three-four years). My dilemma is this ... CD or Net? I am currently purchasing programming software for the Amiga and I would like to know which is a better way of getting source code and other useful things such as utilities.

I can't afford them both, so which one has the greatest advantage to offer?

Adrian Newman, Leicester.

Uh-oh, that's a tough one Adrian. The Internet is an amazing resource. There are vast amounts of software available over the Aminet. However, pretty much all of it is available via the Aminet CD-ROMs as well.

On the other hand the really massive bonus of getting netted up is the unparalleled research resources it gives you.

Newsgroups and IRC give you forums for discussion on every topic under the sun and are a great place to get help on any technical problems that face you – newsgroups are also interactive, so you can post questions which may be answered by others reading the same group.

On the other other hand, how long would it take to download the amount of software you would get on one CD? Three days or so? Compare the phone bill to the cost of a CD. Not to mention the huge hard drives you would have to buy.

Get yourself a CD-ROM drive and you can buy the CD edition of CU Amiga Magazine every month. The extra £1.50 outlay gets you as much software in one month as 25 years worth of floppy editions. As for source code, plenty is available either way: CUCD7 contained the source code for Alien Breed 3DII, for instance.

Our advice is to buy yourself a CD-ROM first. Read our tower Amiga feature and you'll see that this need not be an expensive option. Then save up a little and get netted as well.

Amiga friendly

Dear CU Jimmy *(I've been getting enough of that from friends since I joined CU Amiga, you lot lay off, right? – Andrew)*

1. I recently bought a second hand Epson LX800 printer. The guy I bought it from was running it on a PC. It seemed to work fine, so I handed over the cash, but when I got it home and plugged it in, the lights came on, the printer showed ready but when I used Wordworth via the Epson X printer driver, all that happened is the green ready light flickered until Wordworth decided it had finished printing.

Other packages I tried had similar results. My manual says that a jumper switch needs changing. Can I do this job myself?

2. I have just upgraded to an A1200. However, every time I reset it takes ages to boot a disk. Is this because I do not have a hard disk?

3. I have just bought some amplified speakers for my personal CD player. Can I use them with my Amiga, and if so how?

4. I have found a lot of my old A500+ programs no longer work. Is there an A500 emulator?

5. If I bought a 3.5" IDE adaptor from my Amiga dealer, would I be able to use any PC hard drive?

6. If I was going to buy a printer again, which brand is the most 'Amiga friendly'?

A. Nonymous, Bury.

1. Setting jumper switches on printers is easy. They should be accessible through a panel and are just a bank of very small switches that can be pushed up or down with a pencil. Each switch is numbered and can be on or off. Just check which needs to be where and push them. Simple!

2. A1200s take longer to get going than A500s.

It seems to vary from computer to computer but it can take ages. Getting a hard drive will speed up the whole process of booting Workbench and will greatly enhance general use of your Amiga.

3. Yes, just connect them to the phono sockets at the back of the Amiga. Your speakers probably have a stereo mini jack connector, so you will have to buy a stereo mini jack to twin phono connector.

Any computer supplier or electronics shop will sell you one for a couple of quid.

4. There are a whole load of tools for just this job! They are called degraders. Ring any of our advertisers who sell public domain software to get am idea of what is available. They'll be able to sort you out.

5. Just so long as you don't want one of the monstrous many-gigabyte drives at the very top end of the market you will have no problems with any PC IDE drive.

6. Canon are the only printer manufacturer to actually support the Amiga, but using third party drivers such as TurboPrint or StudioPrint, most modern printers will be happy with the Amiga. Avoid 'Windows printers' though. ■

Send your Q&A problems to ...

You can send your technical problems [or answers – Ed] to CU Amiga Magazine by the following means:
By letter to Q&A, CU Amiga, Priory Court, 30-32 Farringdon Lane, London, EC1R 3AU.
Email: Q+A@cu Amiga.co.uk.
NO SAES PLEASE We regret that we can't respond to readers' questions by post or over the phone. Please do not include a stamped addressed envelope with your letters as we simply don't have time to answer the thousands we receive. Responses are only available through the pages of this magazine.

Backchat

What do you think of it all? If you've something you want to get off your chest then do it here. Write to us at 37-39 Millharbour, The Isle of Dogs, London E14 9TZ.

Sub story

I'm writing about the subscription offer that you are running at the time of writing whereby a 25% discount is given on a six-month subscription. I have a query. Why is a 25% discount not also given on the 12 month subscription? Do you really think there will be anybody who'd rather pay more per issue and go for a 12 month subscription? There are only three types of people who I can think of who would do this:

1. Those who are simply too stupid to notice that, at the current rate, they'd actually be paying more per issue when they subscribe for 12 months instead of six months.

2. Those who are so lazy that they can't be bothered to pick up the phone or lick a stamp in six months time to resubscribe, so will just go for the 12 month subscription instead.

3. Those who are rich enough to simply not care about the extra money they'd be paying out.

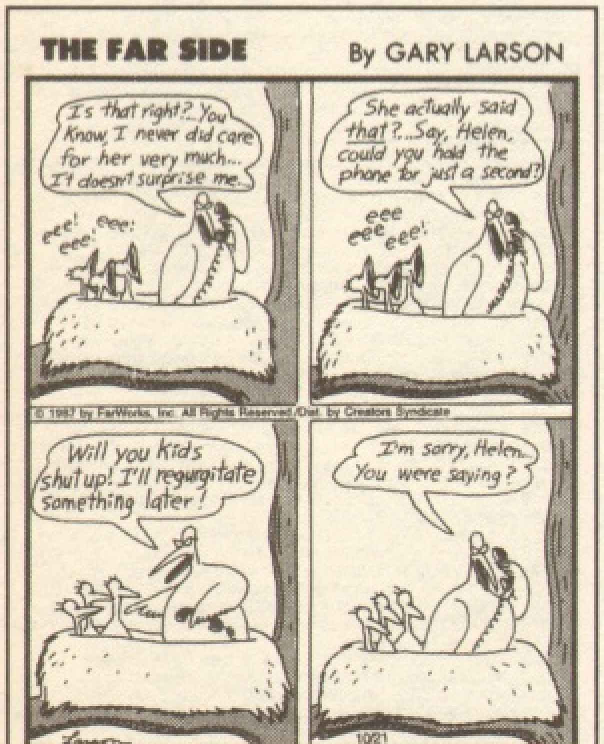
I'm sure we'd both like to think that that there won't be very many people in the first category. So do you expect your readers to have more money than sense or to be too busy, too lazy to pick up the phone once every six months to subscribe?

The reason for the discount as I see it is to encourage people who are unsure whether a 12 month subscription will be worth and/or don't have the full amount for 12 months to subscribe. OK, I hope this works as it will help to secure the future of one of my favourite magazines.

Why then, don't you at least match the discount on the 12 month subs? You could even match it and offer some token free software gift such as one of the older Aminet CDs, a budget game or the like. Surely it's the 12 month subscribers who are your most valuable customers? So why are we being punished for our loyalty?

Gavin Gunn, Solihull.

Over to Tony the editor: I have to say I agree with you, it does seem rather strange. I've put this point the subscriptions department and the whole subscription deal is being re-organised , so with any luck by next issue you should find a number of attractive new offers for both 6 and 12 month subs. Keep an eye out



Lazy lump

Firstly let me say that I find your magazine very useful and informative. I am a sad owner of a stand alone CD32. I haven't even got a keyboard or a mouse. I buy your magazine because your CDs are compatible and whilst some of the bigger demos don't work fifty per cent do. The only thing that gets me is when you build up expectation like "next month free playable demo of Chaos Engine 2". I rushed to the newsagents on the 15th and lo and behold there it was. I ran home, put it on but before I could play it I had to unpack the bloomin' thing to disk. This is impossible if you've only the CD32. I would have thought that you would have at least made the cover game compatible with all machines and playable from the CD.

Full marks for OctaMED SoundStudio though. Even though I can't type in my own stuff I can change instruments on other people's and make it sound totally different.

Also thanks for the way that you've made the Workbench on CD 7 and 8 not reset when I open the lid on the CD32 enabling me to use any other disc for tunes/FX. I can also play games which only have mouse control with a joystick if I click on the joy-mouse icon.

Thanks for a brill magazine and your CDs are the only ones that I can find that work my CD32. Can I run other Amiga CD-ROMS on my CD32 using Workbenches from CD7 or CD8?

L Doggett, Essex.

Our CD compilation department are glad to hear all their hard work is appreciated! A hell of a lot of effort goes into making sure our cover CDs are by far the best around, and as you say, apart from all the great and exclusive software on them, it's the small things that can make all the difference. To answer your question, yes you can use CUCDs to boot your CD32 and then use other CD-ROMs after that.

Amiga rules

Several months ago some jerk had the gall to say that Amigas were Ford Escorts and PCs are Jaguars. For a start the Jaguar is a Ford, so are many other cars i.e. Ferrari F-40. My point is that PCs are using 16-bit architecture and 1959 technology (busarch). Motorola left that area in the early 60s to get themselves out of debt and went to direct access arch ... you know the rest.

People complain that the Amiga is more expensive than PCs; bull, here the A1200 costs $650 and the most basic PC costs US$2000 and then it can't even real time multitask like the Amiga. WINblows 97 and os2warp4 need 32Mb and 64Mb respectively to even do cooperative multitasking. In my book that isn't multitasking. Yes you may 'run' them with less RAM but not as effectively.

The Amiga is far cheaper than the PC in Europe and the US plus the software is better and faster. The A1200 is faster then a Pentium 133 in a lot of areas except for math processing, but you can get an accelerator card and have everything and still be cheaper then the PC. To make a long story short you can't beat the Amiga in any area.

Bryan Mcowen Email: bsmcowen@hotmail.com

Well done

I cannot thank you enough for your article on how to build your own tower (April 97). It might just save my life. OK, I exaggerate, but I'd been waiting for something like that for months now

and just when I'd given up hope of it ever appearing in any Amiga magazine it turned up in yours. And there's more to come. I just can't wait. Thanks again.

E. Beaver, Bradford.

Aaah shucks, you're welcome.

New group

Could you help us out by informing the Amiga users of Norfolk that there is a new Amiga group that has been started. We currently have over 30 users, and are welcoming any other Amiga users to come and join our Amiga group which offers a meeting place for all Amiga owners. Hopefully any promotion through CU Amiga Magazine will allow people to join who may of not otherwise heard of the group. The group is based near Norwich in Felbrigg, and the organiser, John Kelly, can be contacted on (01263) 515056.

Carl Warrent, Email:carl.warrent@motel.overflow.com

Your wish is our command.

Alarmed

As an A1200 owner I am very worried at the moment. The recent comments I have read in various sources made by Quikpak are alarming to say the least. From what I've read it sounds like Quikpak only want to buy the Amiga so they can secure their high end operations.

It's ridiculous for them to say "who would buy the low end model?" that they have planned should the sale go through. Are they on a different planet? Thousands of A1200 owners, including myself, have recently bought CD-ROM drives because we want to stick with the Amiga. I plan to expand my setup with the inclusion of a monitor and an accelerator card, before the year is out. His comments were from someone who does not understand or even care about A1200 owners. I'm sure I'm speaking for a lot of A1200 owners when I say that I'm still with the machine because I can't afford an A4000T. I'll probably never be able to afford the new super Amigas that are planned. £1300 plus monitor is way OTT.

Why does CU Amiga Magazine keep on saying that the A\Box is the next Amiga? It isn't, the next Amiga will be the official one released by Amiga Technologies. The A\Box is an unofficial clone hybrid. You also make out that current Amiga owners will rush out and buy it by the tens of thousands. That will simply not happen, I doubt many A1200 owners will buy the A\Box. The new ownership will probably be existing big box owners. I've been into computers for 15 years and one thing I've learnt is that manufacturers always understate the price of a new machine. Don't be surprised if the price is more than £1300.

To have mass appeal the next official Amiga must have a low end model around the £500-£600 mark. It will be a major sickener if Quikpak, the so-called saviour of the Amiga end ups killing my Amiga-using life by turning its back on low end users. Is this what I get for three and a half years of loyalty? I hope not.

Alex Smyth, Sheffield.

Take a look at our special news feature in this issue for all the latest info on the situation. The reason we've been hailing the A\Box as the 'new Amiga' is that it's the first progressive computer to have been announced in years, and that's what the Amiga is and should be. We still don't know the fate of the official Amiga name and technology, and we don't want to kid everyone into thinking that whoever buys the Amiga will save the day and make everything all right again.

Good game?

What has happened to the quality of Amiga games? I read through your vintage games feature and when I finished there were tears in my eyes.

There were some classic games there, that even by today's standards would knock spots off any of the current pathetic offerings that are around. What has happened to the Amiga? There hasn't been a decent game released in months. Worms was the last decent one to come out and all we've had since then are different versions of it.

OK, maybe a lot of the big names have gone from the Amiga game scene, so there is some excuse for the dive in the numbers, but the companies that are left seem to be chucking out any old rubbish at us in the belief that Amiga game players are so desperate for a game they'd buy anything. Also the prices that these companies are charging are extortionate. Games like Beneath A Steel Sky commanded a £20 plus price tag but current games with poor graphics and gameplay don't. Some of the games that are around now for a similar price are laughable.

On a more positive note, I was heartened to see the previews from the Islona label last month. That's more like it. I just hope that the finished games are as good as the previews look and sound. If not, I think I'll throw the towel in and get a PC.

Lindsey Moir, Scotland.

There's no denying that the number of Amiga games being released has dwindled and that some companies which would barely have got a look in during the 'good old days' are dominating the market with less than top quality games. However, there are still some good releases now and then, like Big Red Adventure for example, which you'll find reviewed in this issue.

I'm a true blue fan

I just feel I have to write to someone who can share the same point of view as I do about the Amiga. I am so sick of people coming up to me and asking me why I don't buy a PC and get rid of my Amiga. All I ever hear is the Amiga is out, PCs are in. It's driving me crazy. I get into countless arguments with these people about the Amiga and its direction (or lack of). I bought my Amiga 1200 a few years ago and have upgraded it at every opportunity and I tell you that if I had the money again now, knowing what's happening (or not happening) with the Amiga, I still would have bought it. The Amiga is probably the most versatile computer available. With a PC, every few years you have to upgrade it to new specifications. A few years ago you could get by on a PC with 8Mb and a 386 processor, now a 486 is barely good enough and 32Mb is recommended. With the Amiga you can upgrade at your leisure and you can get by on a bare minimum. So, is this because the software is better on the PC? Is it hell. Microsoft Word 6 & Digita Wordworth 6, what's the difference? Wordworth is faster and gives you the opportunity to draw basic diagrams. Does Microsoft Word? No.

Ah but you can get Window 95 on the PC. So, it's taken Microsoft up to 1995 to create a good operating system and it still isn't as flexible and resourceful as Workbench 3. There's even the facility to import MS-DOS files on a DD disk. Does the PC offer any such facility?

Everyone says "the Amiga is just a games computer ...". Wordworth, TurboCalc, Personal Paint and Scala are all excellent programs. Does this sound like a mere games computer? Most PC printers work on the Amiga, there are even software programs that emulate the PC. The Amiga is a very powerful computer. With the right backing and the right advertising campaigns the Amiga could be brought to life, bigger and better than ever. PC packs come with CD-ROMs and other extras as standard. If the Amiga did then there's no reason why the Amiga couldn't become as popular as it has been in the past. A good idea is to eliminate the idea of it being a games computer.

Robbie Hall, Newcastle Upon Tyne.

No cash

Will you people stop telling me to buy more and more bits and pieces for my computer. I am an old age pensioner and I bought my A500 in good faith some years back. I mainly use it for word processing and games and I'm happy with it the way it is. I don't need any fancy add ons to make me happier. I'm sick of reading articles such as upgrade or die slagging off people like me who don't have the cash to buy extra items that I feel I don't really need. So stop making me feel as if it's my fault that the Amiga market is going down the pan just because I'm happy with my A500 as it is.

Bert Rodgers, Westmoreland.

As the editor Tony said a month or two ago, it's not our place to dictate to any of our readers what they should and should not buy. OK, sometimes we might get a bit carried away in reviews with statements like "You must buy this!" but you should remember we're only offering advice, even if it does get a bit over-enthusiastic at times. Just so long as you keep buying CU Amiga every month, we won't complain.

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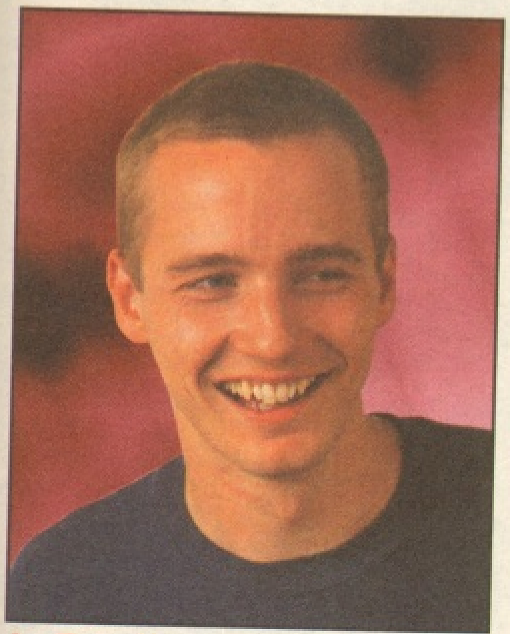
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Points of view

Does it matter who owns the Amiga?



by Tony Horgan

As the months go by, the saga of who will eventually own the Amiga name and technology gets less and less relevant to the future of creative computing. While the Amiga is still a great machine, what most of us want is a next generation computer – one that competes with and beats the current alternatives. This requires a computer that's designed from scratch with an architecture built to handle the kinds of tasks we're likely to throw at it over the coming years. This is the basic idea behind machines like the A\Box and PIOS 1, which aim to hook in the Amiga crowd through compatible operating systems.

So why should anyone be interested in a bunch of custom chips which has since been surpassed by numerous super-cheap PC cards? Search me! What about the Amiga Technologies inventory? Well that must be worth something, but it's doubtful that there are substantial stocks of ready-to-ship Amigas sitting around anywhere by this stage. That leaves the operating system and the Amiga name itself. As a base for developing future operating systems, AmigaOS is a great start. This is the one aspect of the whole Amiga Technologies package that could really be worth something to a potential buyer.

But what about the Amiga name itself, surely that's got to be worth something? True, but its value would depend on who the new Amiga owners were to target as potential customers for their new project. Launched into the home computer or video production markets, a technically impressive new computer would certainly do well to sport an Amiga badge. However, if the target users

> **“While the Amiga is still a great machine, what most of us want is a next generation computer.”**

were to be those already converted to the Church of Gates, anything that dared to bear a different monicker would surely be laughed out of the office with arrogant ignorance.

So the moral of the story... As inventive users of technology, we want to see the Amiga story continue, to provide us with new and revolutionary hardware on which to run new revolutionary software. The most likely way that this will happen is via a major third party hardware development which retains a degree of Amiga compatibility as a stepping stone. The old Amiga hardware, and even the name itself, are quite irrelevant in this situation, which leaves the ownership of the AmigaOS as the only hurdle. It's with this in mind that we've concentrated our special news report on all the companies making real progress in bringing the Amiga up to date, rather than continually chasing rumours and broken promises from the 'official' Amiga soap opera. ■

■ Tony Horgan is CU Amiga Magazine's Editor.

Multimedia speakers? Pull the other one!



by Andrew Korn

There is nothing arcane about connecting a decent sound output to your computer. The Amiga has phono sockets at the back which output a line level musical signal – a theoretical 0.707 volt output at maximum level. Your CD player, tape deck, video recorder, tuner etc output at a level which is close enough to this that they can all be plugged into the line inputs at the back of a hi-fi amplifier.

The death of the 10 meter long cable connecting my system gave me the final excuse to give in and buy myself a pair of 'multimedia' speakers.

Computer speakers and personal stereo come in two types, active and passive. Passive ones work at line level and sound poor. Active ones have an amplifier built in and need to be powered. This was the type I looked at. Eyeing through the boxes, I was surprised by the claims. Mini speakers rated at over 100 watts seem pretty unlikely, and claims of bass response down to 30Hz out of tiny boxes are simply lies, as I know well from my experience in speaker design. There are people whose job it is to figure out absurd rating systems to make these things look better than they are, but I was shocked by the degree to which

> **“There is nothing arcane about connecting a decent sound output to your computer.”**

this is taken with computer speakers.

If you go into your local electrical retailer and compare specifications of personal stereo speakers and computer speakers, you will notice that the former seem to average 1 or 2 watts and the latter 25 plus. Don't be taken in, they sound about as loud as each other. Multimedia is a buzzword right now and the manufacturers are trying to wring as much out of the gullible masses as they can.

So what did I get? I found a mini system with two reasonable little speakers, an amp, tape deck, radio, and auxiliary input for the Amiga. The whole lot cost just £30 and it sounds better than any multimedia speakers I've heard too! ■

■ Andrew Korn is CU Amiga Magazine's Staff Writer.

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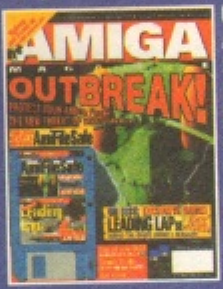
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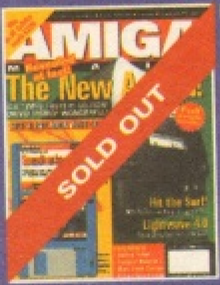
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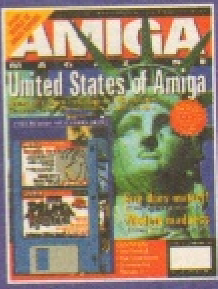
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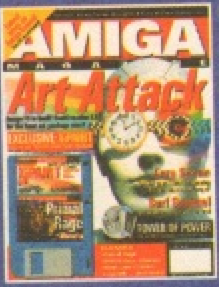
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FEATURES: Free Amiga music book, the new Walker, Amiga Surfer pack, and the quest for Amigas.
INSIDE: LightWave 4, Slamtilt Pinball, Tracksuit Manager 2 reviewed.

June 1996



ON THE DISKS: Termite demo, Killing Grounds demo. Plus free 96 page net and comms guide.
FEATURES: Escom sells Amiga Technologies, publish your music.
INSIDE: Modem round-up, Total Football and new TimeKeepers disk reviewed.

July 1996



ON THE DISKS: XiPaint (full program) and Primal Rage demo.
FEATURES: Special report on what's happening in Europe and the latest on Visorp and PIOS.
INSIDE: Image FX 2.6, Surf Squirrel, A4000 Tower, Primal Rage, SWOS Euro and more reviewed.

August 1996



ON THE DISKS: EasyCalc (full program) and Valhalla III demo.
FEATURES: The future of the Amiga with VIScorp, the new PIOS machine and the second part of the Euroscene feature.
INSIDE: Siamese Twin, Photogenics 2.0, Valhalla III and Tin Toy reviewed.

September 1996



ON THE DISKS: Vista Lite (full program) and a demo of Brian Lara Cricket '96. CD-ROM edition too.
FEATURES: The Aminet exposed. All 6 gigabytes!
INSIDE: Final Writer 5, OctaMED SoundStudio, Atapi CD-ROM drive. Plus an exclusive preview of the new AGA Worms.

October 1996



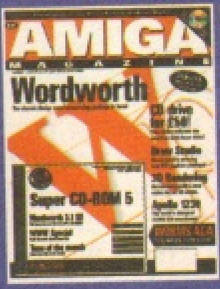
ON THE DISKS: Upper Disk Tools: ideal for sorting out those awkward disks and drives!
FEATURES: The Amiga in America, Net software...
INSIDE: The speed issue, or something. Three top accelerators, a TCP/IP stack comparison and Capital Punishment.

November 1996



ON THE DISKS: XCAD 2000 - The premier 3D CAD package, plus Chaos Engine 2. Choose CD-ROM or floppy edition.
FEATURES: Palmtop Amiga-Psion link-up.
INSIDE: Opus 5.5, Delfina DSP sound card, Web Browser War, Alfa Quatro, CD-ROM writer and more.

December 1996



ON THE DISKS: Wordworth 3.1 SE, Worms - The Directors Cut demo. CD-ROM or floppy edition.
FEATURES: CD-ROM drive for £50! Amiga and PC games on CD-ROM.
INSIDE: Draw Studio, Apollo 1230, Storm C, Siamese RTG system, Teen Agent, Tiny Troops and more.

January 1997



ON THE DISKS: Imagine 4.0, Underwater Capers, plus over 100Mb of Imagine extras on CD. CD-ROM or floppy edition.
FEATURES: Get a job in computer graphics, plus eight pages of Imagine 4.0.
INSIDE: Art Effect, PPaint 7, SWOS 96-97, Fighting Spirit, Chaos Engine 2 ...

February 1997



ON THE DISKS: Design Works, Minskies Furballs plus Worms – the Director's Cut extras and Imagine extras on the CD.
FEATURES: The new A/Box and working in computer graphics part II.
INSIDE: Wordworth 6 Office, Turbo Calc, Minskies Furballs, Bograts reviewed.

March 1997



ON THE DISKS: OctaMED SoundStudio (full program), Chaos Engine 2. Plus Chaos Engine 2 AGA demo and lots more on CD.
FEATURES: Turn your Amiga into a pro studio. Printers: problems solved.
INSIDE: Quickcam, Cybervision 3D, SMD 100, JetPilot and tons more reviewed.

April 1997



ON THE DISKS: Directory Opus 5.11 (full program), Tiny Troops demo, loads of stuff on CD.
FEATURES: Build Your Own Tower Amiga Part 1, The 50 Best Amiga Games Ever!
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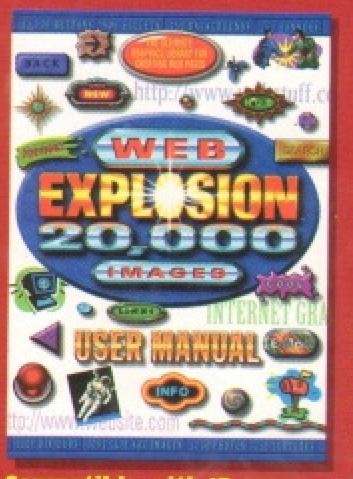
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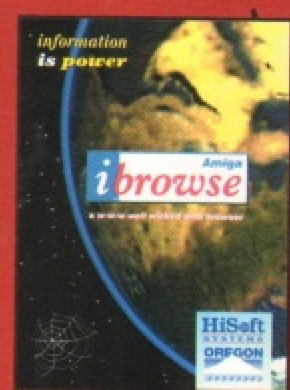
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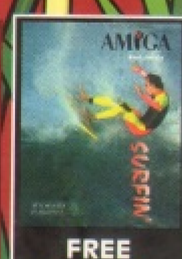


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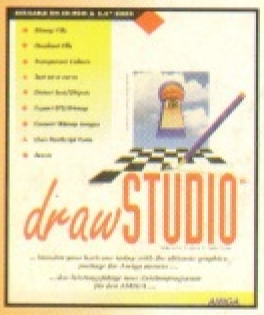
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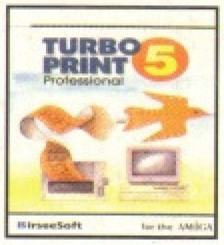
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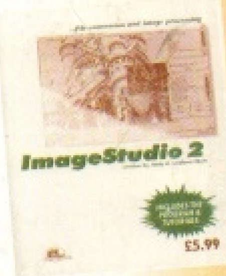
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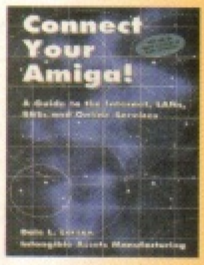
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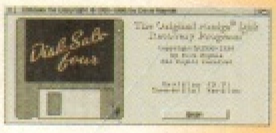
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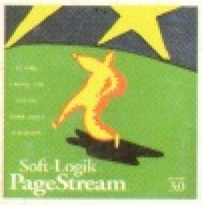
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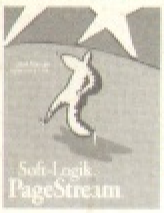
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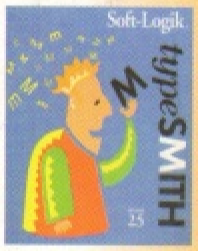


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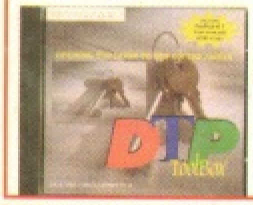
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